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March 1990

Earth Sciences and Materials Engineering Building

Facility Program

Minneapolis Campus

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING
University of Minnesota
Minneapolis Campus
Project No. 297-87-0126

FACILITY PROGRAM

March 1, 1990

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EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

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I. Introduction

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

PART I: INTRODUCTION

The *IT Master Facilities Plan* identifies two strategic problems with regard to the Institute's physical facilities. The first is an overall space shortfall of more than 400,000 assignable square feet (ASF). The second is the general obsolesence of the Institute's buildings, most of which have sub-standard services and numerous violations of fire, life-safety, and access codes.

The Earth Sciences and Materials Engineering Building is an especially important project in the implementation of the *IT Master Facilities Plan*, for upon completion of this project (following construction of the Electrical Engineering and Computer Science Building), the Institute of Technology will have most of the additional space that it needs for its programs on a long-term basis.

I.A THE EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

The Earth Sciences and Materials Engineering Building is a facility of approximately 150,000 ASF and 272,700 GSF. It is to be assigned to a group of units including the Newton Horace Winchell School of Earth Sciences (hereafter the Winchell School of Earth Sciences) and materials science and engineering programs. It will also include advanced technology laboratories for new centers and programs, office space for the Center for the Development of Technological Leadership and for the IT Dean's Office, and general purpose classroom and student commons space.

Earth, mineral, and water resources are all of vital concern to the state. Much of the University's research and instruction in these areas is conducted within the three components of the Winchell School of Earth Sciences: the Department of Geology and Geophysics, the Minnesota Geological Survey (MGS), and the Limnological Research Center (LRC). The Winchell School of Sciences is currently housed in Pillsbury Hall and off-campus in the Bruce Building, where the Minnesota Geological Survey has been located since 1970. It also has temporary research laboratory space in Shepherd Laboratories and temporary instructional laboratory space in Ford Hall. Pillsbury Hall is a very old building that for many years has provided inadequate instructional and research facilities. An architectural evaluation of this building that was completed as part of the *IT Master Facilities Plan* concluded that it is not feasible to renovate Pillsbury Hall for use by science and/or engineering disciplines. The amount of space in Pillsbury Hall (29,799 ASF) is also not sufficient to accommodate the current programs of the Department of Geology and Geophysics--one of three components of the Winchell School of Earth Sciences--let along the projected space requirements of all three components. Rejoining these three components--Geology and Geophysics, MGS, LRC--is a major objective of the *IT Master Facilities Plan*.

In addition to supporting the instructional and research programs of the Winchell School of Earth Sciences and rapidly developing materials science and engineering programs within IT, the proposed new building is important in two other respects. First, it will provide a modest amount of research space, controlled by the Dean of the Institute of Technology and not assigned to any department, for the support of new interdisciplinary initiatives. Second, it will provide modern classrooms and a significant amount of student commons and study space, the need for which is documented in all recent University planning documents, including the *IT Master Facilities Plan*.

I.B THE INSTITUTE OF TECHNOLOGY MASTER FACILITIES PLAN

The *IT Master Facilities Plan* was prepared in 1984-85, reviewed by the University's Central Administration, approved in principle by the Board of Regent's, and sent to the legislature, which had requested the study and appropriated funds for its completion in the 1984 session.

Implementation of the plan has been carefully studied by the IT Long-Range Planning Committee and will proceed in three phases, as described below.

SUMMARY OF IMPLEMENTATION PHASES

Phase 1 is has been completed. Major projects included: i) the Civil and Mineral Engineering Building (1983), ii) the Electrical Engineering and Computer Science Building (1988), iii) the renovation of Smith Hall (1988), and iv) the renovation of Amundson Hall (1989).

Phase 2 consists of the following projects: i) renovation of the vacated Electrical Engineering Building, ii) construction of a new Earth Sciences and Materials Engineering Building, iii) construction of an addition to the Architecture Building and renovation of the existing building, and iv) renovation of Walter Library. Phase 2 also assumes that renovation of Fraser Hall for English and Composition will be a high priority item in the overall University facilities planning. This is important to the Institute, because it would make all of Lind Hall available for IT programs, with English and Composition moving to Fraser.

Phase 3 will include the following major projects: i) renovation of Tate Laboratory of Physics and construction of a link between Tate Labs and Vincent Hall, ii) renovation of the Mechanical Engineering Building, and iii) renovation of Akerman Hall. Phase 3 will also include the following projects of lesser scope: i) renovation of Lind Hall, ii) renovation of Vincent Hall, iii) renovation of the St. Anthony Falls Hydraulics Laboratory, iv) renovation of Kolthoff Hall, and v) renovation of the MRRC Building.

THE EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING AND THE IT MASTER FACILITIES PLAN

Two alternatives to a new Earth Sciences and Materials Engineering Building have been carefully considered; both of these are outlined in the *IT Master Facilities Plan* and both have been reviewed by the IT Long-Range Planning Committee and the University's Central Administration.

The first alternative was a new building for Mechanical Engineering, with the Winchell School of Earth Sciences moving into the present Mechanical Engineering Building, following suitable renovation. This alternative was rejected in the current Phase 2 proposal for implementation of the *IT Master Facilities Plan*, which leaves Mechanical Engineering in its current location and provides expansion space for Mechanical Engineering in the current Electrical Engineering Building.

The second alternative was to move the Winchell School of Earth Sciences to a renovated building on the East Bank campus that is not currently assigned to IT. The current proposal to construct a new building for the Winchell School of Earth Sciences is a variation of the second alternative; this variation was suggested as an option in the event that a suitable non-IT building was not available for renovation and allocation to IT. The University's Central Administration has determined that there is no non-IT building that could be renovated and made available for use by the Winchell School of Earth Sciences.

PILLSBURY HALL

Pillsbury Hall, which was constructed in 1889 and which is the University's second oldest building, is the most obsolescent of the Institute's buildings. Indeed, it is the only major IT building that is beyond cost-effective renovation for science or engineering programs and that should be reassigned by the University to a non-IT program. This conclusion, as drawn in the *IT Master Facilities Plan* after careful study of the building, is not without irony, for Pillsbury Hall (originally the Science Building) was the first building constructed at the University for science programs. The extent to which it is now inappropriate for science or engineering programs is a measure of the extent of scientific progess in the United States during the last century.

It should be emphasized that Pillsbury Hall is the University's most historic structure and that it will remain as a campus landmark. It can be well utilized by other University programs.

II. Academic Brief

PART II: ACADEMIC BRIEF

II.A THE NEWTON HORACE WINCHELL SCHOOL OF EARTH SCIENCES

II.A.1 HISTORY AND MISSION

The origins of the Winchell School of Earth Sciences at the University of Minnesota date to the establishment of the Minnesota Geological Survey at the University in 1872, when J. S. Pillsbury was President of the Board of Regents. Two years later, in 1874, the University was reorganized into 20 departments in 4 colleges. The Department of Geology and Mineralogy was established at this time in the College of Science, Literature, and the Arts, and its activities included those of the Survey. In 1890 the department moved into the University's new Science Building (now Pillsbury Hall), where it has remained for nearly a century.

The department grew steadily following its establishment in the late 19th century and reached an especially crucial point in its history in the late 1950's.

In 1958 the University asked a group of prominent geologists from outside the University to study the department and make recommendations regarding its future. This committee was chaired by T. S. Lovering. Among the committee's recommendations are three which have played a major role in shaping what is now the Winchell School of Earth Sciences:

- transfer the department of Geology and Mineralogy to the Institute of Technology;

- separate the Minnesota Geological Survey from the department of Geology and Mineralogy and provide each with separate budgets;

- make plans for replacing or remodelling Pillsbury Hall.

The Winchell School of Earth Sciences, as presently organized, dates from 1962, when the first two of these three recommendations was carried out with the formation in the Institute of Technology of the Winchell School of Earth Sciences, comprising the Department of Geology and Geophysics, the Minnesota Geological Survey, and the Limnological Research Center. The latter had been established some years earlier by a grant from the Hill Family Foundation.

The missions of all three components of the Winchell School of Earth Sciences are related, but they are sufficiently different to warrant separate descriptions.

II.A.1.a DEPARTMENT OF GEOLOGY AND GEOPHYSICS

The mission of the Department of Geology and Geophysics is fourfold.

1. To provide for the education and training of professional geologists and geophysicists at both undergraduate and graduate

levels. In this, its focus is on principles and basic topics, which gives students the background and flexibility to pursue careers in any direction within the geological sciences and to be best prepared to adapt to the changing needs within the profession.

2. To provide instruction for non-majors to satisfy curricular needs of other teaching programs within the University, and to provide large numbers of students with an understanding of geological processes and evolution of the physical world in which they live and an understanding and appreciation of the interdependence of human activities and the geological environment.

3. To further knowledge of geological processes and earth history by carrying out fundamental research, which is closely linked to the education and training of graduate students. This research is focussed on several areas within geology/geochemistry, geophysics, and hydrogeology, with supportive programs across the whole realm of the geosciences. There is a considerable amount of research that crosses programmatic lines and interdisciplinary lines within the University.

4. To respond to the needs of the national, state, and local communities by making the professional expertise of faculty and students available in questions of occurrence, evaluation, and management of natural resources, locations of waste disposal sites, and water quality.

Earth sciences is increasingly a highly integrated field, and there are strong ties among the Department's three major disciplinary areas (geology/geochemistry, geophysics, and hydrogeology) and between the School's other two components, the Minnesota Geological Survey and the Limnological Research Center. There are areas of great strength across the disciplines within the Department, most notably in aqueous geochemistry, rock magnetism, geodynamics, and limnology. Programmatic plans calling for increased emphasis on hydrogeology, seismology, and isotope geochemistry, a field of traditional strength at Minnesota.

II.A.1.b MINNESOTA GEOLOGICAL SURVEY

The mission of the Minnesota Geological Survey (MGS) is to undertake and promote the scientific study of Minnesota's geology and to make the results available to the public.

The Minnesota Geological Survey was established by Legislative Act, March 1, 1872 (General Laws of Minnesota, 1872, Chapter 30), when the Board of Regents of the University was authorized to begin a geological and natural history survey of the state. Section 2 of the Act provides that the geological survey be undertaken with a "...view to a complete account of the mineral kingdom as represented in the State..." Sections 7 and 8 provide that the geologic studies be presented in the form of maps and associated reports, and that they be transmitted as widely as possible to the general public, as well as to the legislature.

The research and service roles of the Survey have changed over the years as

the science of geology has matured and the needs of the state have shifted. Today the MGS devotes fully half of its effort to work that contributes to wise management of Minnesota's natural resources, especially its water resources.

As a research and service arm of the University, MGS conducts basic and applied earth science research to elucidate the complex and challenging geology of Minnesota for the benefit of the state's citizens. MGS research results are communicated in its own publications and in the professional literature of the international earth sciences community. Moreover, MGS makes a special effort to make information available in terms understandable to the public at large. For example, MGS staff members work directly with local government officials to facilitate their use of the county geologic atlas materials.

While the MGS mission is statewide, staff members are concentrated in the Twin Cities. The major reason for this is the clear benefit of having the Survey affiliated with the University and the Winchell School of Earth Sciences in particular. The mandated tasks of the MGS can be carried out more effectively as a program of the University than as a state agency because of: i) access to the University library system; ii) access to the expertise in other units of the Winchell School of Earth Sciences and in University departments such as Civil and Mineral Engineering, Mechanical Engineering, Physics, and the MRRC; iii) the availability of skilled student help; and iv) access to the University computer systems. The MGS provides on-the-job training for undergraduate and graduate students in Geology and Geophysics; supports and advises thesis research in Geology and Geophysics; supplies research funds and grants-in-aid to students and faculty at Twin Cities, Duluth, and Morris Campuses; and fulfills a major component of the public service mission of the University. The MGS and the Department of Geology and Geophysics together form an effective combination of basic and applied research, public service, and teaching.

MGS is consulted frequently by state agencies such as the DNR, EQB, Highway Department, Waste Management Board, PCA, and Health Department and also by federal agencies such as the Department of Energy and the U.S. Geological Survey. Demand from county governments for geologic atlases has created a waiting list for this product. In calendar 1986, MGS received about 1,200 telephone inquiries about geologic information from the MGS computerized water-well data file, and about 1,000 visitors came in to search those files. MGS maps and publications and the MGS public geologic sample program, which provides free identification of any rock mineral collected in Minnesota, are other important components of the MGS public service function.

II.A.1.c THE LIMNOLOGICAL RESEARCH CENTER

The Limnological Research Center (LRC) was established in 1960 with a grant from the Hill Family Foundation and has since been supported by Federal, State, municipal, and foundation grants and contracts.

The mission of the Limnological Research Center is to provide a focus for teaching and research in the chemical, physical, and biological processes of modern lakes. A major objective of LRC research is to understand natural environmental changes over time, as well as to document the effects of human disturbances, in order to facilitate better management of

Minnesota lakes. The program is highly interdisciplinary, and the graduate students involved come from the Department of Ecology and Behavioral Biology as well as the Department of Geology and Geophysics. The faculty members are responsible for the basic and advanced courses and seminars in limnology, to which students are drawn from environmental engineering, forestry, geography, soils science, public health, public affairs, and many other fields, as well as from geology and ecology.

The LRC was established in order to focus research and teaching on one of the most important natural resources of Minnesota, and to emphasize the interdisciplinary nature of this scientific field. Since its inception, the faculty members associated with the LRC, in addition to their teaching and research, have provided valuable assistance to public groups concerned with problems of water pollution, lake restoration, and land use. The Limnological Research Center is a unique institution in the U.S., with a worldwide reputation.

II.A.2 CURRENT FACILITIES

In 1960 the Lovering Committee first called attention to the need to either replace or remodel Pillsbury Hall. Some progress was made on this recommendation in the early 1960's, when about half of the School's research laboratories were remodelled. However, since the early 1960's, as the School's enrollments have grown with those of the University and as its programs have grown, its location in Pillsbury Hall has been a major constraint. In 1963 all undergraduate laboratories were moved to Temporary South of Folwell (TSF), one of a number of temporary buildings constructed in the immediate post-war era. Soon thereafter the Survey also moved to TSF, and then back to Pillsbury when TSF was razed, and then out of Pillsbury again in 1970. So began a series of shuffles that has been continuous for the past 25 years and that has included several false starts towards planning for a new building for the School.

The present situation is simply the latest in this ongoing process. It finds the School occupying space in 4 different buildings, with most offices in Pillsbury Hall, with the Minnesota Geological Survey off-campus in the Bruce Building, with major research laboratories in Shepherd Laboratories, with undergraduate laboratories split between Ford Hall and Pillsbury Hall, and with the Limnological Research Center without any identifiable location.

This separation of the School's components and of the individual component's basic functions (teaching research, service) has led to general inefficiencies in the way the programs operate and lessened their effectiveness.

All components of the School lack many of the research facilities necessary for their scientific function, most notably access to an electron microprobe.

II.A.3 FUTURE FACILITIES NEEDS

A major objective of the *IT Master Facilities Plan* is to rejoin the components of the Winchell School of Earth Sciences in a common facility. Each of these components would benefit greatly by increased opportunities

for the sharing of staff, research laboratories, and special instrumentation, including a new electron microprobe.

There are considerable inefficiencies in MGS that result from its current off-campus location; staff time is wasted in traveling to on-campus facilities to use research equipment and the IT library, to confer with departmental colleagues, and to perform routine administrative tasks. There are similar inefficiencies resulting from the separation of the Department of Geology and Geophysics' instructional laboratories (Ford Hall) and research laboratories (Shepherd Laboratories) from one another and from faculty and administrative offices in Pillsbury Hall. These inefficiencies would be resolved by housing all components of the School of Earth Sciences in a common facility.

While the space provided for the Minnesota Geological Survey in the building will include 2,000 ASF for short-term, archival storage of drill cuttings, space for long-term storage of drill cuttings, as required of the Minnesota Geological Survey by state regulation, will continue to be provided in an off-campus location. Long-term storage of core materials for the Minnesota Geological Survey will remain at the Minnesota Department of Natural Resources, Division of Materials, Core Depository in Hibbing Minnesota.

II.B MATERIALS SCIENCE AND ENGINEERING

II.B.1 HISTORY AND MISSION

Materials science and engineering is a relatively new discipline that grew out of solid-state physics, solid-state chemistry, and metallurgical engineering in the 1950's and 1960's. As such, it is both science and engineering--the science of understanding the electrical, mechanical, and physical properties of materials such as alloys, composites, blends, and thin films as well as the engineering selection and application of these materials to devices and structures. The scientific principles embody electronic band structures, defect structures, thermodynamics and kinetics, gas-solid, liquid-solid, and solid-solid phase stability, solid-state microstructures, and the micromechanics of mechanical behavior. Engineering applications include material development and selection for virtually any use--from strained-layer, thin-film heterostructures for electronic devices to superalloys for hypersonic jet engines.

Both industry and government currently view the field of materials science and engineering to be the key to many developing technologies. One area that will be of special importance in the future is super-conductivity, where there have been revolutionary developments just within the past year, in both the basic science and numerous applications.

Activities in materials science and engineering are spread across several IT departments, including Aerospace Engineering and Mechanics (composite and polymeric materials and crystalline structures), Electrical Engineering (materials for microelectronic devices), Chemistry (solid-state chemistry) and Physics (solid-state physics, super-conducting materials). The core of these activities, however, is in the Department of Chemical Engineering and Materials Science, which was formed in 1970, when the Department of

Chemical Engineering was reorganized, with the mission to develop a world-class program in materials science and engineering.

II.B.2 CURRENT FACILITIES

Facilities for materials science and engineering are currently spread throughout IT in Akerman Hall, the Electrical Engineering Building, Smith Hall, Shepherd Laboratories, and Amundson Hall.

II.B.3 FUTURE FACILITIES NEEDS

Materials science and engineering activities in Chemistry and Electrical Engineering are provided for in the Smith Hall renovation project and the new Electrical Engineering and Computer Science Building. There is insufficient and inadequate space for these activities in the facilities assigned to the Departments of Chemical Engineering and Materials Science, Aerospace Engineering and Mechanics, and Physics. Space in the Earth Sciences and Materials Engineering Building is needed to support materials science and engineering activities in these three departments and to house special instrumentation, in a common facility, for use by all materials science and engineering programs within IT.

II.C ADVANCED TECHNOLOGY LABORATORIES

II.C.1 HISTORY AND MISSION

The *IT Master Facilities Plan* identified the need for laboratory space for new interdisciplinary programs in rapidly developing technologies. This is necessary to support new activities as they emerge which cannot be accommodated in current facilities. The importance of this space cannot be over-emphasized. It is essential, if the Institute is to compete successfully for NSF-sponsored Engineering Research Centers (ERCs) and Science and Technology Centers (STCs) and if it is to support fully cooperative research programs with industry.

II.C.2 CURRENT FACILITIES

The only space currently available for such programs on a very limited basis is the Shepherd Laboratories building, which is managed by the Graduate School, and which currently provides some research space for initiatives in several different colleges. For the past ten years, most interdisciplinary centers within IT (e.g. the Corrosion Research Center, the Microelectronics and Information Sciences Center, and the Productivity Center) have been very poorly accomodated in departmental facilities.

II.C.3 FUTURE FACILITIES NEEDS

It is anticipated that on average the Institute will need space for three center type programs, as new centers come into existence and as established centers go out of existence or are absorbed within a departmental facility

as part of the department's regular program. Each of these three areas should be a contiguous complex of approximately 9,000 ASF with a small administrative office for a director, research offices for research assistants and associates affiliated with the center, and research laboratories. This space will be managed by the Dean of the Institute of Technology.

II.D. CENTER FOR THE DEVELOPMENT OF TECHNOLOGICAL LEADERSHIP

II.D.1 HISTORY AND MISSION

The importance of technical leadership to the future of this country is well accepted, and industry leaders in the Minneapolis metropolitan area have stressed the need for better educational programs for their technical managers. In response to these expressed needs, the University of Minnesota has established the Center for the Development of Technological Leadership (CDTL). Major funding for the CDTL was provided by the Honeywell foundation, which has established an endowment of four professorships through the Minnesota Campaign. The CDTL will be administered in the Institute of Technology, but the center's activities will involve faculty from the College of Liberal Arts and the Carlson School of Management, as well as IT.

The CDTL has three components:

1. an undergraduate enrichment component for engineering and science students which leads to dual degrees: a BS in engineering or science and a BA in a liberal arts discipline;

2. a graduate program of study leading to a master's degree in technology management, and

3. a research and experimental program in technology transfer.

The underlying goal in these three components of the CDTL is to enhance the educational background of the participants with the objective of producing graduates who are better prepared to accept leadership roles in technological environments.

The CDTL will become operational in 1988-89 and will be fully staffed by 1989-90.

II.D.2 CURRENT FACILITIES

During the first few years of operation the CDTL will be housed temporarily in several offices in Lind Hall.

II.D.3 FUTURE FACILITIES NEEDS

When fully operational, the CDTL will require a small administrative office complex for faculty and staff and a large seminar room.

E. IT DEAN'S OFFICE

II.E.1 HISTORY AND MISSION

The origins of the Institute of Technology date to 1869, when a College of Agriculture and Mechanic Arts was created. Two years later a separate College of Mechanical Arts was established by the Regents, and the first baccalaureate degrees were awarded in 1875. Initially there were only two engineering programs: Civil Engineering and Mechanical Engineering. Departments of Mathematics and Geology were created in 1874; Electrical Engineering and Physics emerged in 1888; the School of Mines was formed in 1901; Chemistry became an independent unit in 1902; Architecture had an early start, was dropped in 1892, and then later was restored just prior to World War I.

The Institute of Technology was established as a collegiate unit in 1935, when Engineering, Architecture, Mines, and Chemistry were brought together under one administrator, Dean Samuel C. Lind, formerly head of the School of Chemistry. Physics, Geology, and Mathematics were later moved from the old college of Science, Literature, and Arts to IT. The last department to be added to the Institute, as it is currently configured, was Computer Science, which was formed in 1971. The Institute contains a number of centers, in addition to the twelve main departments and schools. Some of these report directly to the dean (e.g. MEIS, CDTL, IMA); others are under the administrative jurisdiction of a department or school (e.g. MGS, Productivity).

The Institute of Technology's academic structure, in which twelve departments and schools in engineering, the physical sciences, computer science, mathematics, and architecture are located in the same collegiate unit, is unique in the nation. At other institutions, the disciplines represented in IT are usually organized into three or four separate colleges.

The Dean of the Institute of Technology is responsible for managing the University's second largest collegiate unit. Responsibilities are divided into four broad area: i) academic affairs, ii) student affairs, iii) internal relations (e.g. with other collegiate units and with central administration), and iv) external relations (e.g. with funding agenices, alumni, and Minnesota industry). In addition to the Dean, there are two other line officers in the IT Dean's Office, an Associate Dean for Academic Affairs and an Associate Dean for Student Affairs. Both of the associate deans have part-time administrative appointments. It is expected that a third associate dean will be appointed for the 1989-90 academic year.

Other professional staff in the IT Dean's Office include an assistant dean for unclassified students, a director of admissions, a director of the IT Honors Program, a director of Project Technology Power, a director of the IT Placement Office, and a director of the UNITE instructional television system, all of whom report to the Associate Dean for Student Affairs, and a director of external relations and three associates to the dean, all of whom report directly to the Dean.

II.E.2 CURRENT FACILITIES

All elements of the IT Deans' Office involved with academic affairs and internal and external relations are currently located in Walter Library, where they were moved temporarily in 1985. All elements of the IT Dean's Office involved with student affairs, including the Associate Dean for Student Affairs, are located on a long term basis in Lind Hall, where these activities were recently consolidated.

II.E.3 FUTURE FACILITIES NEEDS

Office space in the new building is needed to provide a permanent location for those elements of the IT Dean's Office involved with academic affairs and internal and external relations. The IT Student Affairs Office and all units associated with it (e.g. advising and tutorial program, admissions, IT Honors, PTP, Placement, UNITE, student organizations) will remain in Lind Hall.

III. Minnesota Facilities Model Application

PART III: MINNESOTA FACILITIES MODEL APPLICATION

III.A PROJECTED SPACE REQUIREMENTS

Projected space requirements for programmatic units in the Earth Sciences and Materials Engineering building are based on programmatic projections as first analyzed in the *IT Master Facilities Plan* and as subsequently reviewed and updated in on-going planning exercises. The programmatic projections have been approved by the Dean of the Institute of Technology and the Provost and Vice President for Academic Affairs. The space projections derived from the programmatic projections conform to the guidelines of the Minnesota Facilities Model.

3.A.1 NEWTON HORACE WINCHELL SCHOOL OF EARTH SCIENCES

PREDICTORS

Faculty	24.5
Research Associates/Fellows	7
Visitors/Adjuncts	6
Administrative	2
Teaching Assistants (< .5)	24
Research Assistants (< .5)	64
Post-Doctorals	19
Undergraduate Student Asst	4
Secretarial/Clerical	9
Student Office Assistant	4
Technician	6
Scientist	25
Civil Service Other	4
Graduate Enrollment	94
Advanced Graduates	66
Class Laboratory Hours	1552

SPACE PROJECTION

Office	22055
Research Lab	43575
Instructional Lab	4926
Other	3000 *
TOTAL	73556

* Includes 3000 ASF for map sales/service.

III.A.2 MATERIALS SCIENCE AND ENGINEERING

PREDICTORS

Faculty	10
Research Associates	3
Post-Doctorals	8
Research Assistants (< .5)	45
Advanced Graduates	45

SPACE PROJECTION

Office	6825
Research Lab	23100
TOTAL	29925

III.A.3 ADVANCED TECHNOLOGY LABORATORIES

PREDICTORS

Faculty	12
Visitors	16
Research Associates	12
Post-Doctorals	6
Research Assistants (< .5)	40
Technicians	8
Advanced Graduates	20

SPACE PROJECTION

Office	9900
Research Laboratory	18000
TOTAL	28500

III.A.4 CENTER FOR THE DEVELOPMENT OF TECHNOLOGICAL LEADERSHIP

PREDICTORS

Faculty	5
Visitors/Adjuncts	4
Research Associates	2
Administrative	1
Research Assistants (< .5)	10
Secretarial/Clerical	2
Advanced Graduates	20

SPACE PROJECTION

Office	2550
Other	300
TOTAL	2850

III.A.5 IT DEAN'S OFFICE

PREDICTORS

Professional Administrative	8
Secretarial/Clerical	9

SPACE PROJECTION

Office	2550
Other	1450 *
TOTAL	4000

* includes meeting room and storage space for collegiate files and records

III.A.6 CLASSROOMS AND COMMONS SPACE

The space projection for Classroom Space is based on an analysis conducted by Room Scheduling of needs throughout the Institute of Technology and other University departments on the east bank campus.

The space projection for Commons Space is the amount appropriate for the building, given needs throughout IT, as identified in the *IT Master Facilities Plan*.

SPACE PROJECTION:

Classrooms	7075
Commons	4000

III.B SPACE PROJECTION AND FACILITY PROGRAM SUMMARIES

The Minnesota Facilities Model space projection for the programmatic units in the Earth Sciences and Materials Engineering Building is summarized on the following page, along with a summary for the facility program. The facility program closely follows the MFM space projection. The only difference is that per agreement with the Winchell School of Earth Sciences, some spaces that will be shared by the three programmatic components of the Winchell School of Earth Sciences and that will be available for use by other programmatic units in the building are listed in the facility program as "Common Facilities." These include several shops and the field staging laboratory (garage). Also, offices for visitors of the research centers in the Advanced Technology Laboratories are listed as Common Facilities.

III.B.1 MINNESOTA FACILITIES MODEL SUMMARY BY CATEGORY OF SPACE (ASF)

	TOTAL	OFFICE	LAB	OTHER
School of Earth Sciences	73556	22055	48501	3000
Materials Science and Engineering	29925	6825	23100	0
Advanced Technology Laboratories	27900	9900	18000	0
CDTL	2850	2550	0	300
IT Dean's Office	4000	2550	0	1450
Classrooms	7075	0	0	7075
Commons	4000	0	0	4000
TOTAL	149306	43880	89601	15825

III.B.2 FACILITY PROGRAM SUMMARY BY CATEGORY OF SPACE (ASF)

	TOTAL	OFFICE	LAB	OTHER
School of Earth Sciences	69600	22920	43040	3640
Materials Science and Engineering	29260	6300	22960	0
Advanced Technology Laboratories	24450	6810	17640	0
CDTL	2850	2550	0	300
IT Dean's Office	4030	3010	0	1020
Common Facilities	6480	3000	3480	0
Classrooms	7560	0	0	7560
Commons	5000	0	0	5000
	149230	44590	87120	17520

IV. Facility Requirements

PART IV: FACILITY REQUIREMENTS

IV.A GENERAL DESIGN CONSIDERATIONS

IV.A.1 MODULARITY AND FLEXIBILITY

The Earth Sciences and Materials Engineering Building will provide space for 9 programmatic units, which conduct educational, research, and service activities:

School of Earth Sciences

1. Department of Geology and Geophysics
2. Limnological Research Center
3. Minnesota Geological Survey

4. Materials Science and Engineering
5. Research Center I (Advanced Technology Laboratories I)
6. Research Center II (Advanced Technology Laboratories II)
7. Research Center III (Advanced Technology Laboratories III)
8. Center for the Development of Technological Leadership
9. IT Dean's Office

The Earth Sciences and Materials Engineering Building will contain 10 distinct types of space:

1. administrative offices
2. faculty offices
3. student offices
4. staff and visitor offices
5. instructional laboratories
6. research laboratories
7. common instrumentation laboratories
7. shops/storage/service areas
8. classrooms
9. student commons

Although priority should be given in the building to providing an identity for the programmatic units within the building and to locating various types of space in ways that promote appropriate levels of accessibility, traffic flow, and security, highest priority must be given to the development of a modular arrangement of laboratories and associated offices (e.g. faculty, student) in order to support the work of research and teaching groups.

In order to meet this highest priority, the building should be viewed in terms of two different categories of space, as well as in terms of programmatic units and types of space. The first category of space includes those types of space that do not lend themselves to modular arrangement (e.g. classrooms, student commons areas, and administrative offices).

The second category includes laboratories and office space for the people

who work in these laboratories: faculty, research associates, scientists, teaching assistants, research assistants, post-doctoral students, and laboratory technicians. These laboratories and offices account for approximately 80% of the space in the building.

A standard module of laboratories and associated offices should be defined, and this module should be replicated throughout the building. It is mandatory that mechanical and electrical service chases serving these modules be easily accessible and that they run through the building, in a logical and systematic way, for the sake of cost-effectiveness and long-term flexibility. It is particularly important that mechanical chases be designed to accommodate the addition of fume hoods.

The major difference among the programmatic units in the building with laboratory requirements is the ratio of laboratory to office space. There is some variation. For purposes of defining a standard module, a ratio of laboratory space (ASF) to office space (ASF) of approximately 2.8 to 1 should be assumed. This ratio is based on a standard research group of 1 faculty and 4 associates (research assistants, post-doctoral students, etc.). The laboratory/office module may be designed to accommodate more than one such group. For programmatic units with greater office needs, it is acceptable to locate office space within the laboratory portion of the standard module (e.g. research assistant offices). These areas might be either separate rooms or partitioned areas or alcoves providing desk space.

The laboratory/office modules may differ from one another in terms of floor plan within the office portion and floor plan and services within the laboratory portion.

Research laboratories are organized in groups and subgroups, as explained below in section IV.C.6., and these groups and subgroups are to be organized into one or more laboratory/office modules, according to whatever additional organizational criteria may be specified in the individual room descriptions.

IV.A.2 ACOUSTICS

Interior partitions should be designed to prevent sounds generated in one space from reaching another space. Unless a deviation is specifically noted in the individual room descriptions, all office and laboratory spaces should have a minimum STC rating of 45-50 dB.

Some of the activities taking place in certain laboratories, as noted in the individual room descriptions, are extremely noisy (e.g. grinding). These laboratories should be located in the building so as to minimize, if not eliminate, their impact on other spaces.

IV.A.3 CLIMATE CONTROL

A reliable climate control system is required. The temperature range is to be between 65 - 78 degrees fahrenheit and relative humidity levels are to be between 35% - 50% throughout the building. In any given room, the temperature must not fluctuate by more than 5 degrees and the humidity by more than 5 percent in any twenty-four hour period, even during seasonal changes, when many buildings experience significant fluctuations. This is

especially important in laboratories. The ventilation system should operate with the maximum background noise criterion curve level at an NC rating of 30-35. This is especially important in offices and classrooms.

The building must have its own stand-alone HVAC control system, separate from the University's central Building System Automation Control (BSAC) controls. BSAC will be superimposed on top of the building's system.

IV.A.4 VIBRATION CONTROL

Most laboratory procedures and activities are sensitive to vibrations. Care should be taken to minimize vibrations throughout the building, by such means as structural design and the isolation of mechanical and electrical equipment.

Some of the laboratory space in the building requires a great degree of vibration isolation for such sensitive instrumentation as electron microscopes, scanning-tunnelling microscopes, and microcrobes. The exact requirements are detailed in the manufacturers' installation manuals for these instruments, which are available from users. The architectural consultant may wish to consider meeting this requirement by placing vibration isolation slabs on the lowest level of the building, as in the Electrical Engineering and Computer Science Building. Information on how this was done is available from the University.

IV.A.5 SECURITY

All interior doors must be lockable. All stairway doors and exterior doors and the passenger and freight elevators must be electronically lockable from a central point, in order to restrict access to the building and access to specific floors during certain periods.

The architect should research the advantages and disadvantages of an electronic card key system versus a mechanical key system, including cost implications, and report the findings to the Building Advisory Committee. The architect should also estimate the additional cost of providing empty conduit to all door latches throughout the building, so that the Building Advisory Committee can consider the possibility of adopting a mechanical key system initially, while making provision for future conversion to a card key system.

IV.A.6 LIGHTING

Unless a deviation is specifically noted in the individual room descriptions, the lighting on work surfaces in laboratories and offices should be according to the latest Illuminating Engineering Society (IES) requirements. In order to minimize glare on video screens, indirect lighting should be used in all office areas.

IV.A.7 COMMUNICATIONS

The building must have a communications system consisting of the following components:

i) A cable distribution system of conduit and cable-trays (for horizontal distribution) and communications closets (for vertical distribution), that makes it possible to distribute communications cables into every room of the building. Every room should have several conduits dedicated for communications cabling, and these should terminate in the appropriate enclosure.

ii) Computer machine room(s) for location of larger computer systems and management of communications networks.

iii) Communications cabling and active electronics.

Design of the cable distribution system and the computer machine room is the responsibility of the architect, and this work will be included in the construction portion of the project budget. Choice of cable and active electronics is not the responsibility of the architectural consultant, and this work will be funded from the equipment allocation in the non-construction portion of the project budget.

IV.A.8 PEDESTRIAN TRAFFIC

The building should be designed to minimize pedestrian traffic in research areas, and to provide easy access to classrooms, instructional laboratories, the main student commons areas, and administrative offices. Classrooms should be located as close as possible to the main building entrances.

IV.A.9 FREIGHT ELEVATOR

The building must have a freight elevator, adjacent to a loading dock, capable of caring loads up to 10,000 pounds in weight. The door on the cab must be at least 8 feet high and at least 8 feet wide and the minimum cab dimension must be not less than 12 feet.

IV.A.10 DEMONSTRATION/DISPLAY

The main occupant of the building is the School of Earth Sciences. Some public place in the building, perhaps the main entry area or a display room off the main entry area, should be used as a demonstration and display area. Wall, floor, or ceiling finishes in this area might, as one example, make use of stones native to Minnesota.

IV.A.11 ARTWORK

The project budget includes $400,000 for artwork. The commission of this artwork is the responsibility of a special University committee. The architect is invited to make suggestions on the kind of work(s) that might be most appropriate for the building and/or the building site, and on the location of the work(s) within the building or on the building site.

IV.A.12 COST CONSTRAINTS AND PROGRAM CHANGES

In the event the architect discovers that the requirements specified for a particular room (or group of rooms) are achievable only at great expense or are difficult to achieve within the modular concept for the building discussed above in section 1, the Building Advisory Committee is to be alerted to the problem and will consider changes in the program.

IV.A.13 ROOM SIZES

Room sizes given in the individual room descriptions (Appendix A) are approximate. Minor deviation from the stated room sizes is permissible. Laboratories are specified as multiples of 280 ASF (e.g. 280, 560, 840, etc.). These too are approximations. However, laboratories should be designed as multiples of a basic unit.

IV.A.14 ROOM CODING

Individual rooms are coded for ease of reference according to the following scheme.

ROOM CODE = XX.YY.ZZ

XX = UNIT

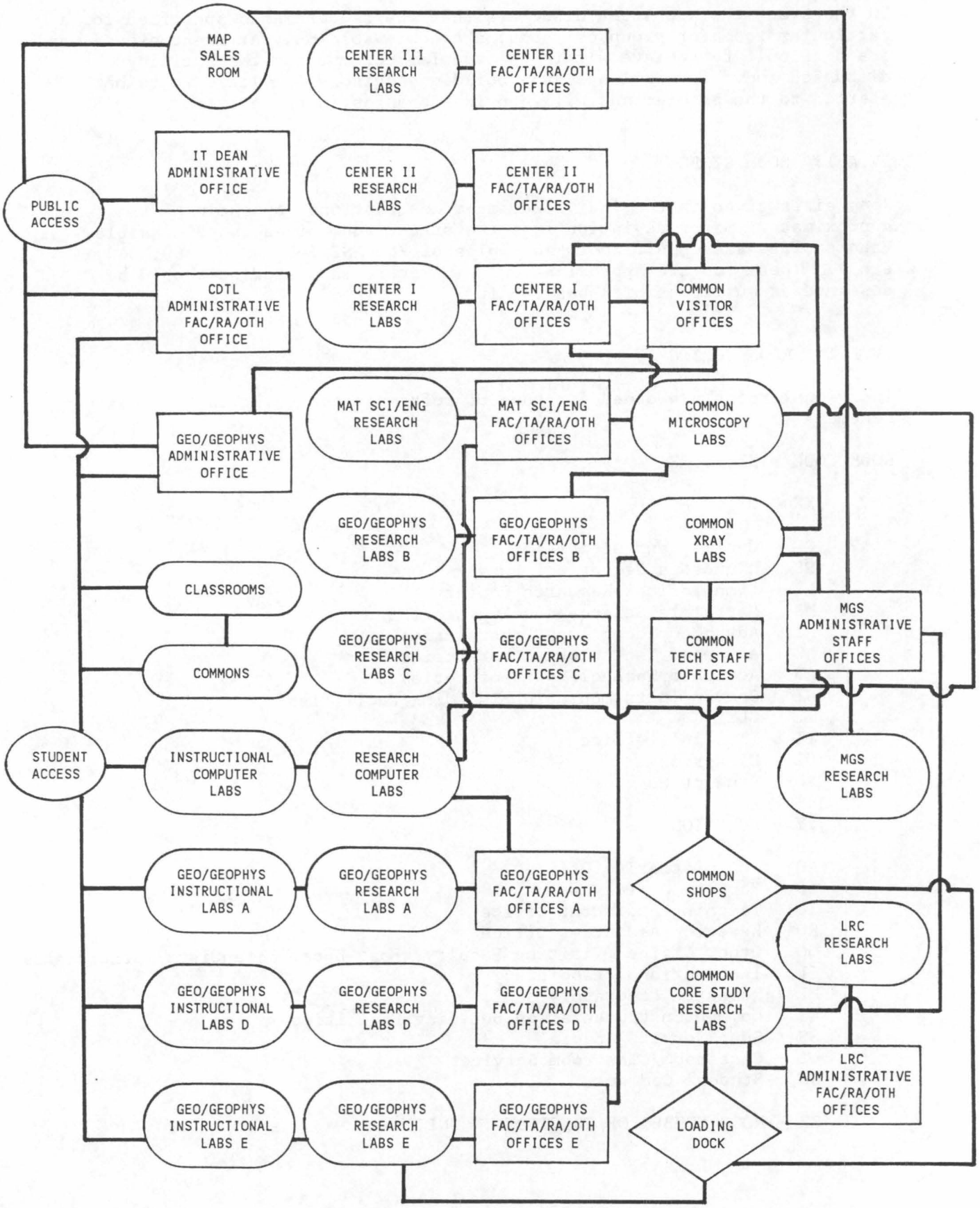
GG	Geology and Geophysics
GS	Minnesota Geological Survey
LR	Limnological Research Center
ME	Materials Science and Engineering
A1	Advanced Technology Laboratories 1
A2	Advanced Technology Laboratories 2
A3	Advanced Technology Laboratories 3
CI	Common Instrumentation/Building Facilities
TL	CDTL
IT	IT Dean's Office
CL	Classrooms
SC	Student Commons

YY = FUNCTION

AO	Administrative Office
FO	Faculty Office
TO	Teaching Assistant Office
RO	Research Assistant Office
OO	Other Office (Visiting Faculty, Post-Docs, Scientists/Technicians)
IL	Instructional Laboratory
RL	Research Laboratory
CI	Common Instrumentation/Building Facilities
SS	Shop/Service/Special
CL	Classroom/Classroom Service
SC	Student Commons

ZZ = ROOM NUMBER OF FUNCTION IN UNIT

FUNCTIONAL RELATIONSHIPS DIAGRAM



IV.B ORGANIZATION AND FUNCTIONAL RELATIONSHIPS

This section provides guidelines for the organization of programmatic units within the building and for the organization of laboratory space on the basis of functional, as well as programmatic, relationships. These relationships are depicted schematically in the diagram on the preceding page.

IV.B.1 ADMINISTRATIVE OFFICES

Administrative office space for Geology and Geophysics, the Limnological Research Center (LRC), and the Minnesota Geological Survey (MGS) must be separate.

The Geology and Geophysics administrative office (GG.AO.1-9) should be located prominently within the building, but away from classrooms and pedestrian traffic to and from classrooms. It should be easily accessible to students and faculty. Separate entrances should be provided for students (to information desk and student mail boxes) and faculty/public (to reception desk).

The LRC administrative office should be located within the laboratory/office module for the main block of LRC laboratories (LR.RL.3-11).

The MGS administrative office (GS.AO.1-7) and the Maps and Publications Sales Room (GS.SS.1) should be isolated from traffic in the building, but easily accessible to the general public. The Maps and Publications Sales Room should be near, but separate from, the MGS administrative Office.

The administrative offices for each of the Advanced Technology Laboratory complexes should be either within the associated laboratory/office module(s) or near the associated module(s).

The administrative office for the Center for the Development of Technological Leadership (TL.AO.1-3) may be located anywhere in the building. The CDTL faculty and student offices should be adjacent to the administrative office.

The IT Dean's Office (IT.AO.1-17) should be located very prominently within the building, probably on the grade level, but away from classrooms and pedestrian traffic to and from classrooms.

IV.B.2 CLASSROOMS

Classrooms should be located within the building, so as to provide convenient access for students, most of whom will be coming from other campus locations, while minimizing pedestrian traffic through the building. Classrooms should be grouped together in one or two major complexes. They should <u>not</u> be spread throughout the building.

IV.B.3 COMMONS

The 5,000 ASF of commons space may be provided in several areas of varying size. The commons space should provide both quiet areas for study and areas for conversation. All student commons areas should be easily accessible to students. A student commons area(s) should be located near the classroom complex(es). One student commons area should include space for eight vending machines.

IV.B.4 FACULTY, GRADUATE STUDENT, AND STAFF OFFICES

Faculty, teaching assistant, research assistant, and research staff offices should be located with the laboratory/office modules, as described in section IV.A.1. There are two exceptions. First, 20 of the 25 scientist/technician offices for the Minnesota Geological survey should be located together, in an office complex, near the MGS administrative office; the remaining MGS scientist/technician offices, along with the research assistant offices, should be located in the laboratory/office modules housing the MGS research laboratories. Second, as noted above, all of the CDTL faculty and student offices should be located adjacent to the the CDTL administrative office, since there are no CDTL laboratories.

IV.B.5 LABORATORIES AND COMMON FACILITIES

The primary organizational principle for laboratory space is function and laboratory type; programmatic unit is an important, but secondary, consideration. All laboratories are divided into various groups and subgroups.

A group is comprised of laboratories related by function and/or characteristic activity. For example, Group E comprises laboratories in which activities are conducted that are noisy and dirty, while Group N comprises all computer laboratories.

A subgroup comprises laboratories within a group related by programmatic activity. Most subgroups consist of laboratories used by a specific faculty member. Unless otherwise specified in the individual room descriptions, the laboratories in a subgroup should be adjacent to one another or across a hallway from one another.

The groups and subgroups vary considerably in size. Whatever the final size and design of the standard laboratory/office module, it is likely that it will be possible to accommodate some smaller groups within only a portion of such a module, along with space for another group, while larger groups will require more than one module. Subgroups should be accommodated within a single module, to the greatest extent possible. It is permissible to mix groups within modules, with three exceptions. First, Group E laboratories, which house activities that are noisy and dirty, should be isolated by themselves, so as to minimize, if not eliminate, disruption and interference with other activities in the building. Second, the Group M microprobe and microscopy laboratories require vibration isolation, and they should not be mixed with other, less sensitive laboratory activities. Third, the computer laboratories comprising Group N should be placed by themselves.

The laboratory groups are defined as follows.

Group A (10,920 ASF)

Groups A comprises Geology and Geophysics instructional and research laboratories that are related programmatically.

A1	GG.IL.1	Mineralogy Laboratory
A1	GG.IL.2	Petrology Laboratory
A1	GG.IL.3	Physical Geology I Laboratory
A1	GG.IL.4	Physical Geology II Laboratory
A2	GG.RL.1	Rock Mechanics Laboratory
A3	GG.RL.2	Paleomagnetism: Conventional And Superconducting Laboratory
A3	GG.RL.3	Rock Magnetism: VSMS Susceptometer Laboratory
A3	GG.RL.4	Rock Magnetism: Magneto-Optic Imager Laboratory
A3	GG.RL.5	Rock Magnetism: Mossbauer Spectrometer Laboratory
A4	GG.RL.6	Diamond Anvil Laboratory
A4	GG.RL.7	Thermal Stresses Laboratory
A4	GG.RL.8	Sample Preparation Laboratory
A4	GG.RL.9	Field Geology Laboratory
A5	GG.RL.11	Petrology Laboratory
A6	GG.RL.12	Rock Mineral Physics Laboratory
A6	GG.RL.13	Rock Mineral Physics Laboratory (nano-indentor)
A6	GG.RL.14	Rock Mineral Physics Laboratory (high temperature furnaces)
A6	GG.RL.15	Rock Mineral Physics Laboratory
A6	GG.RL.16	Rock Mineral Physics Laboratory

Group B (7,280 ASF)

Groups B comprises Geology and Geophysics research laboratories that are related programmatically.

B1	GG.RL.17	Hydrothermal Laboratory I
B1	GG.RL.18	Hydrothermal Laboratory II
B1	GG.RL.19	Analytical Geochemistry Laboratory (Wet)
B1	GG.RL.20	Analytical Geochemistry: Instrumental Laboratory
B2	GG.RL.21	Radiogenic Isotope Geochemistry: Mass Spectrometer Room
B2	GG.RL.22	Radiogenic Isotope Geochemistry: Clean Chemistry Laboratory
B2	GG.RL.23	Radiogenic Isotope Geochemistry: Support Room for Chemistry
B2	GG.RL.24	Radiogenic Isotope Geochemistry: Electronics Room
B3	GG.RL.25	Stable Isotopes: Mass Spectrometer Laboratory
B3	GG.RL.26	Stable Isotopes: Extraction Laboratory I
B3	GG.RL.27	Stable Isotopes: Extraction Laboratory II
B3	GG.RL.28	Stable Isotopes: Mineral Separation Laboratory
B4	GG.RL.29	Crystallography Laboratory

Group C (2,240 ASF)

Groups C comprises Geology and Geophysics research laboratories that are related programmatically.

C1	GG.RL.30	Hydrogeochemistry Laboratory I (Water Chemistry)
C1	GG.RL.31	Hydrogeochemistry Laboratory II (Isotopes)
C1	GG.RL.32	Hydrogeochemistry Laboratory III (Dye Tracing)
C2	GG.RL.33	Hydrogeology Laboratory (Clean)
C3	GG.RL.34	Hydrogeology Laboratory I

C3	GG.RL.35	Hydrogeology Laboratory II

Group D (3,080 ASF)

Groups D comprises Geology and Geophysics instructional and research laboratories that are related programmatically.

D1	GG.IL.6	Structural Geology Laboratory
D2	GG.RL.36	Structurology Laboratory I
D2	GG.RL.37	Structurology Laboratory II
D3	GG.RL.38	Geology and Geophysics Laboratory

Group E (7,000 ASF)

Group E comprises Geology and Geophysics and Minnesota Geological Survey laboratories in which activities will be conducted that produce considerable noise, dust, and humidity. Group E laboratories should be isolated from other areas of the building to the greatest extent possible. Group E includes both instructional and research laboratories.

E1	GG.IL.5	Earth History Laboratory
E1	GG.IL.7	Sedimentology Laboratory
E2	GG.RL.39	Radiogenic Isotope Geochemistry: Rock Preparation Room
E3	GG.RL.40	Basin Analysis Laboratory
E3	GG.RL.41	Sedimentary Petrology Laboratory
E3	GG.RL.42	Mechanics of Sediment Transport Laboratory I
E3	GG.RL.43	Mechanics of Sediment Transport Laboratory II
E3	GG.RL.44	Mechanics of Sediment Transport Laboratory III
E4	GG.RL.45	Paleontology Laboratory
E5	GG.RL.46	Hydrogeology Laboratory (Wet)
E6	GS.RL.9	Sediment Analysis Laboratory
E6	GS.RL.10	Sediment Disaggregation Laboratory
E6	GS.RL.11	Rock Preparation Laboratory (Dirty)
E6	GS.RL.12	Rock Preparation Laboratory (Clean)

Group F (5,320 ASF)

Group F comprises core study, core storage, and cold room facilities for Geology and Geophysics, the Limnological Research Center, and the Minnesota Geological Survey. Some of these laboratories may require floor loadings in excess of 125 psf; this should be determined by the architect, in consultation with the users. The materials used in the Group F laboratories (e.g. core samples) are very heavy and difficult to move around. Accordingly, these laboratories require excellent access to the loading dock and freight elevator.

F1	GG.RL.47	Glaciology Laboratory
F1	GG.RL.48	Glaciology Cold Room
F2	LR.RL.1	Refrigerated Cold Storage Room
F2	LR.RL.2	Core Processing Laboratory
F3	GS.RL.1	Core Study Laboratory
F3	GS.RL.2	Core Storage Room
F3	GS.RL.3	Cuttings Storage Room

Group G (2,520 ASF)

Group G is comprised of laboratories for the Limnological Research Center.

G1	LR.RL.3	Secure Coring Equipment Storage Room
G1	LR.RL.4	Sedimentary Limnology Laboratory
G1	LR.RL.5	Secure Modern Limnology Equipment Storage Room
G1	LR.RL.6	Pollen Preparation Laboratory
G1	LR.RL.7	Microscopy Laboratory
G1	LR.RL.8	Radioactive Isotope Laboratory
G1	LR.RL.9	Analytical Chemical Limnology Laboratory
G1	LR.RL.10	Neolimnology And Biomanipulation Laboratory
G1	LR.RL.11	Neolimnology And Biomanipulation: Culture Laboratory

Group H (1,040)

Group H is comprised of laboratories for the Minnesota Geological Survey.

H1	GS.RL.4	Geophysics Laboratory
H1	GS.RL.5	Petrographic Laboratory
H1	GS.RL.6	U/Th Disequilibrium Laboratory
H1	GS.RL.7	Microscopy Laboratory
H1	GS.RL.8	Radioactive Source Storage Room

Group I (16,800 ASF)

Group I is comprised of laboratories for Materials Science and Engineering.

I1	ME.RL. 1-12	Research Laboratory
I1	ME.RL.13-36	Research Laboratory

Group J (5,600 ASF)

Group J is comprised of laboratories for the Advanced Technology Laboratories I complex, which will be designed for and assigned to the Center for Interfacial Engineering.

J1	A1.RL.1	Film Balance Laboratory
J1	A1.RL.2	Rheometry: Stress And Fluids Laboratory
J1	A1.RL.3	Photography Laboratory: Dark Room
J1	A1.RL.4	Spectroscopic Ellipsometry Laboratory
J1	A1.RL.5	Capillary Rheometer Laboratory
J1	A1.RL.6	Infrared/Fourier Transform Spectrometer Laboratory
J1	A1.RL.7	Permeability Measuring System Laboratory
J1	A1.RL.8	UHV-CVD Synthesis/Characterization Laboratory
J1	A1.RL.9	Vapor Deposition System Laboratory
J2	A1.RL.10	Processing Laboratory: Twin Screw Extruder
J2	A1.RL.11	Processing Laboratory: Pull Trusion
J3	A1.SS.1	Electronics And Technical Service Workshop

Groups K (4,480 ASF) and L (4,480 ASF)

Groups K and L comprise laboratories for the Advanced Technology Laboratories I and the Advanced Technology Laboratories II complexes.

K1	A2.RL.1-4	Research Laboratory
K1	A2.RL.5-10	Research Laboratory
L1	A3.RL.1-4	Research Laboratory
L1	A3.RL.5-10	Research Laboratory

Group M (10,080 ASF)

Group M is comprised of special instrumentation laboratories for all of the programmatic units in the building. It includes a microprobe facility (Subgroup M1), and X-Ray facility (Subgroup M2), and a microscopy facility (Subgroups M3 - M6). The microprobe and microscopy laboratories require a great degree of vibration isolation, and should be located together. The X-Ray facility does not need to located with the other Group M laboratories.

M1	GG.CI.1	Microprobe Laboratory
M1	GG.CI.2	Microprobe Preparation Laboratory
M2	GG.CI.3	X-Ray Diffraction and Fluorescence Laboratory
M2	GS.CI.1	X-Ray Laboratory
M2	A1.CI.1	X-Ray Laboratory
M3	A1.CI.2	Atomic Force Microscopy Laboratory
M4	A1.CI.3	Scanning Tunneling Microscopy Laboratory
M4	A1.CI.4	STM Preparation Laboratory
M5	A1.CI.5	Transmission Electron Microscopy Laboratory (CM 30)
M5	A1.CI.6	Transmission Electron Microscopy Laboratory (CM 20)
M5	A1.CI.7	Transmission Electron Microscopy: Preparation Room
M5	A1.CI.8	Video-Enhanced Microscopy Laboratory
M6	ME.CI.1-6	Microscopy Laboratory
M6	ME.CI.7-12	Microscopy Preparation Laboratory

Group N (4,760 ASF)

Group N is comprised on instructional and research computer laboratories.

N1	GG.IL.8-9	Computational Laboratory
N2	GG.RL.10	Computing Laboratory
N3	GS.SS.2	Computer Operations Room
N4	ME.RL.37	Computational Laboratory
N4	ME.RL.38	Computational Laboratory
N5	CI.SS.1-2	Computer Machine Room

Group O (1,120 ASF)

Group O is a common shops/technical service facility.

O1	CI.SS.3-6	Common Instrumentation Shop/Technical Service

Group P (1,240 ASF)

Group P is comprised of a garage that will be used by Geology and Geophysics, the Limnological Research Center, and the Minnesota Geological Survey for field staging and the receiving room for the loading dock.

P1	CI.SS.7	Receiving Room
P1	CI.SS.8	Field Staging Laboratory (Garage)

IV.C.1 FACILITY PROGRAM SUMMARY BY FUNCTION

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING		149,230
AO	Administrative Office	12,250
FO	Faculty Office	7,560
TO	Teaching Assistant Office	1,800
RO	Research Assistant Office	10,350
OO	Other Office	13,650
IL	Instructional Laboratory	7,000
RL	Research Laboratory	66,280
CI	Common Instrumentation Laboratory	10,080
SS	Shop/Service	7,400
CL	Classroom	7,560
CS	Commons	5,300

IV.C.2 FACILITY PROGRAM SUMMARY BY PROGRAMMATIC UNIT

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING		149,230
GG	Geology and Geophysics	46,140
LR	Limnological Research Center	6,890
GS	Minnesota Geological Survey	16,570
ME	Materials Science and Engineering	29,260
A1	Advanced Technology Laboratories I	12,310
A2	Advanced Technology Laboratories II	6,070
A3	Advanced Technology Laboratories III	6,070
CI	Common Facilities	6,480
TL	CDTL	2,850
IT	IT Dean's Office	4,030
CL	Classrooms	7,560
CS	Commons	5,000

IV.C.3 FACILITY PROGRAM SUMMARY BY PROGRAMMATIC UNIT AND FUNCTION

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING		149,230
GEOLOGY AND GEOPHYSICS		46,140
GG.AO	Administrative Office	2,000
GG.FO	Faculty Office	3,600
GG.TO	Teaching Assistant Office	1,800
GG.RO	Research Assistant Office	3,900
GG.OO	Other Office	1,800
GG.IL	Instructional Laboratory	7,000
GG.RL	Research Laboratory	24,360
GG.CI	Common Instrumentation Laboratory	1,680
LIMNOLOGICAL RESEARCH CENTER		6,890
LR.AO	Administrative Office	1,350
LR.FO	Faculty Office	720
LR.RO	Research Assistant Office	450
LR.OO	Other Office	450
LR.RL	Research Laboratory	3,920
MINNESOTA GEOLOGICAL SURVEY		16,570
GS.AO	Administrative Office	1,900
GS.RO	Research Assistant Office	450
GS.OO	Other Office	4,500
GS.RL	Research Laboratory	5,800
GS.CI	Common Instrumentation Laboratory	280
GS.SS	Shop/Service	3,640
MATERIALS SCIENCE AND ENGINEERING		29,260
ME.FO	Faculty Office	1,800
ME.RO	Research Assistant Office	3,000
ME.OO	Other Office	1,500
ME.RL	Research Laboratory	17,920
ME.CI	Common Instrumentation Laboratory	5,040
ADVANCED TECHNOLOGY LABORATORIES I		12,310
A1.AO	Administrative Office	1,380
A1.RO	Research Assistant Office	900
A1.OO	Other Office	1,350
A1.RL	Research Laboratory	5,320
A1.CI	Common Instrumentation Laboratory	3,080
A1.SS	Shop/Service	280

IV.C.3 **FACILITY PROGRAM SUMMARY BY PROGRAMMATIC UNIT AND FUNCTION (CONT)**

ADVANCED TECHNOLOGY LABORATORIES II		6,070
A2.AO	Administrative Office	480
A2.FO	Faculty Office	360
A2.RO	Research Assistant Office	450
A2.OO	Other Office	300
A2.RL	Research Laboratory	4,480
ADVANCED TECHNOLOGY LABORATORIES III		6,070
A3.AO	Administrative Office	480
A3.FO	Faculty Office	360
A3.RO	Research Assistant Office	450
A3.OO	Other Office	300
A3.RL	Research Laboratory	4,480
COMMON FACILITIES		6,480
CI.OO	Other Office	3,000
CI.SS	Shop/Service	3,480
CENTER FOR THE DEVELOPMENT OF TECHNOLOGICAL LEADERSHIP		2,850
TL.AO	Administrative Office	630
TL.FO	Faculty Office	720
TL.RO	Research Assistant Office	750
TL.OO	Other Office	450
TL.CS	Commons	300
IT DEAN'S OFFICE		4,030
IT.AO	Administrative Office	4,030
CLASSROOMS AND COMMONS		12,560
CL.CL	Classroom	7,560
CL.CS	Commons	5,000

V. Site

PART V: SITE

V.A INTRODUCTION

A new Earth Sciences and Materials Engineering Building (ESME) offers a unique opportunity to consolidate programs within the Institute of Technology and meet overall campus goals for pedestrian circulation and service delivery. The orientation of this facility must integrate program requirements within the context of adopted campus planning directives. This site section:

- guides the implementation strategies for achieving mandated campus objectives,
- establishes general site development requirements which must be addressed, and
- provides site data which affects the location and design of the facility.

V.B CAMPUS OBJECTIVES

Two previous planning studies, the Long Range Development Plan (LRDP) for the Minneapolis Campus and the Northeast Quadrant Land Use Study (NEQS), directly impact the ESME Building. The Institute of Technology's Master Facilities Plan recognizes these studies and incorporates several of the major overall campus goals outlined in them.

Specifically, the IT facilities plan indicates that ". . . any physical plans for the Institute must relate to the comprehensive planning issues of the University as a whole and be compatible with the long range planning goals of the University. . . ." The IT plan promotes the construction of new facilities, if they are ". . . within the overall development framework of the University. . . ." Together, these documents provide direction for implementing the campus goals discussed below.

V.B.1 Site Description

The project site is located directly east of the IT complex. It is bounded by the Civil and Mineral Engineering Building to the north, Beacon Street on the south, Akerman Hall to the west, and the planned extension of Harvard Street to the east.

The majority of the site is currently occupied by athletic facilities and a temporary contract parking lot. While it is the obligation of the ESME project to fund the relocation of the athletic facilities, it is not the project's responsibility to determine a relocation site. The area is flat, open, and lies two to four feet below existing street elevations. The site's topography and lack of vegetation present no obvious facility design constraints.

V.B.2 Pedestrian Circulation

The siting of ESME at a crossroad of pedestrian circulation routes indicates a critical need to recognize and enhance the pedestrian routes adjacent to and through the site.

The Minneapolis LRDP specifies that the pedestrian circulation system is the framework around which the campus is developed. The plan emphasizes that each new construction project must further the development of the pedestrian system. In the case of ESME, this implies connections to adjacent facilities (Akerman, Shepherd Laboratories, and Civil and Mineral Engineering), as well as the provision for a future pedestrian connection to recreational sports and intercollegiate athletic facilities east of the realigned extension of Harvard Street. The NEQS further emphasizes that any residual open space remaining after the completion of ESME should be linked to existing outdoor spaces through an external pedestrian circulation system.

The intention of the IT facilities plan is ". . . to be flexible enough to accommodate a number of circulation alternatives without compromising the needs of either the Institute or the overall campus. . . ."

V.B.2.a External Pedestrian Circulation (Figure 1)

The external pedestrian corridors to be maintained and reinforced as part of the ESME project are noted in Figure 1.

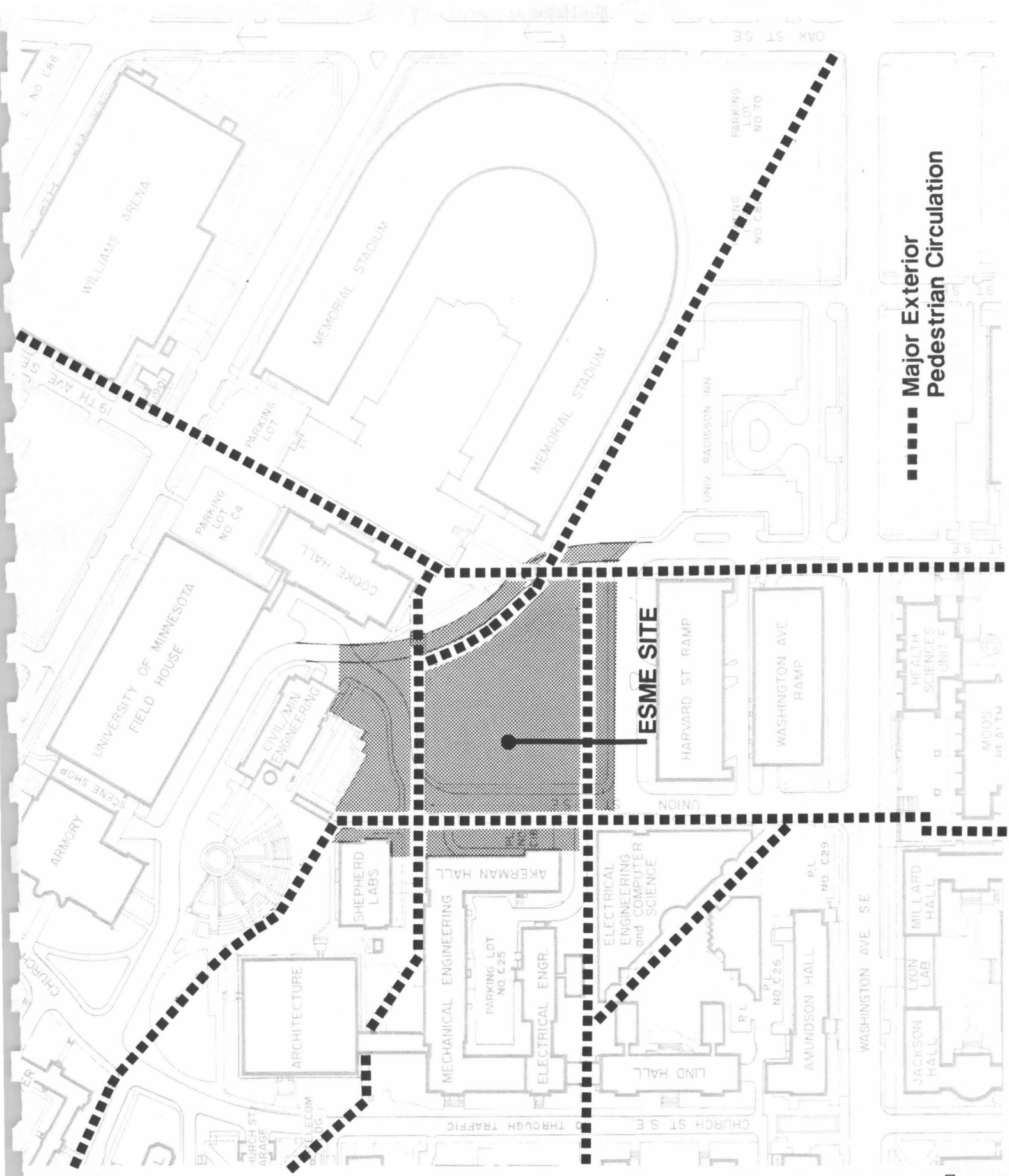
Existing external pedestrian circulation patterns include east/west routes between Shepherd Laboratories and Mechanical Engineering and between the old Electrical Engineering and new EE/CS buildings. A north/south route along existing Union Street must also be maintained, even though a portion of it will need to pass through or under the link between the ESME and Akerman Hall. An open space and external pedestrian connections between the oldest northwest section of the campus and the eastern third of the campus must be preserved.

Figure 2 illustrates the open space areas which should be connected by the external pedestrian circulation system.

V.B.2.b Internal Pedestrian Circulation (Figure 3)

Based on the LRDP, a comprehensive internal pedestrian system is determined by the ". . . proximity of major external pedestrian routes and potential opportunities for establishing contiguous building linkages. . . ." These two criteria are met by the ESME building.

The provision of internal pedestrian routes agrees with and substantiates the IT Facilities Plan, which calls for the connection of existing buildings with either "weatherproof bridges or tunnels wherever appropriate to provide convenient, internal pedestrian circulation to help dissolve academic boundaries between IT departments and facilities. . . ." Internal pedestrian linkages will facilitate pedestrian movement to its ultimate destination, will create a more comfortable and enjoyable environment in the winter months, will integrate the campus into a cohesive whole, and will provide better campus accessibility for mobility impaired individuals.

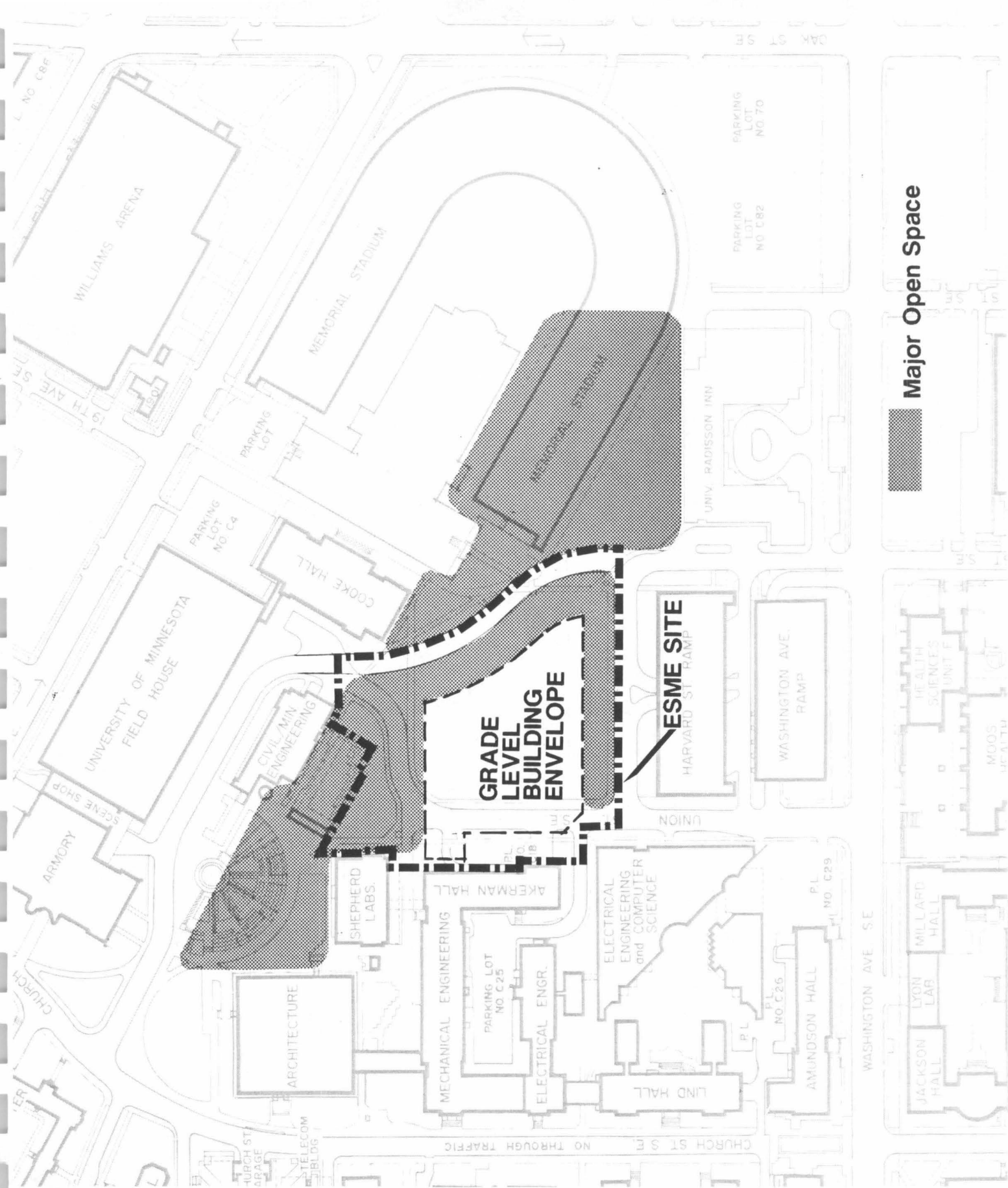


EXTERNAL PEDESTRIAN CIRCULATION

university of minnesota
minneapolis

EARTH SCIENCES &
MATERIALS ENGINEERING
FACILITY

Figure 1



MAJOR OPEN SPACE

50 0 100 200

university of minnesota
minneapolis

university of minnesota
physical planning

EARTH SCIENCES &
MATERIALS ENGINEERING
FACILITY

Figure 2

INTERNAL PEDESTRIAN CIRCULATION

University of Minnesota
Minneapolis

EARTH SCIENCES & MATERIALS ENGINEERING FACILITY

25 0 50 100

ARCHITECTURE
MICROSCOPY ADDITION
CIVIL/MIN. ENGINEERING
COOKE HALL
SHEPHERD LABS.
MECHANICAL ENGINEERING
PARKING LOT NO. C25
ELECTRICAL ENGR.
C18
ELECTRICAL ENGINEERING AND COMPUTER SCIENCE
HARVARD ST. RAMP

BY ESME PROJECT
BY ESME PROJECT (location flexible)
BY EE PROJECT
GRADE LEVEL ESME BUILDING ENVELOPE
ACCOMODATE FUTURE BELOW GRADE CONNECTION

Existing 2nd Level Circulation
Required 2nd Level Connection
Existing Below-grade Connection
Required Below-grade Connection

Figure 3

The accommodations of internal pedestrian movements to existing facilities as well as the accommodations for future connections are outlined in Figure 2 and discussed below.

Existing pedestrian connections within the Institute of Technology (IT) complex are at the second level with the exception of Civil and Mineral Engineering and Amundson Hall, which are connected below grade to Architecture/Shepherd Laboratories and EE/CS, respectively.

ESME must accommodate an above grade connection into Akerman Hall. This can be accomplished via a corridor linkage or by abutting the two buildings.

The second level linkage through the ESME dock between Akerman Hall and ESME can potentially be developed as reoriented classroom space or as student commons.

V.B.3 Service Consolidation/Access (Figure 4)

Currently, there are service points for each facility within the Institute of Technology. The greatest inadequacy is experienced at Shepherd Laboratories. The ESME project provides the opportunity to achieve a centralized service facility.

From a functional perspective, this service point connects Akerman Hall to ESME and potentially serves ESME, Shepherd Laboratories, Akerman Hall, Mechanical Engineering, Architecture, and, in an ancillary way, Civil and Mineral Engineering. It will improve the campus image along the Harvard Street extension, because service would be confined to the service corridor along existing Union Street, which already serves EE/CS and Mechanical Engineering.

In addition, service delivery and trash removal vehicles would be eliminated from the courtyard west of Shepherd Laboratories, and access will be limited to emergency vehicles. The elimination of vehicles from the courtyard provides a two-fold benefit. First, the east/west pedestrian movement at the south edge of Architecture between Shepherd Laboratories and Mechanical Engineering is reinforced. Second, Architecture's programmatic goals of establishing an outdoor laboratory space in the courtyard can be realized.

The service point between Akerman Hall and ESME should consist of a three-bay dock with one bay enclosed. The enclosed bay allows flexibility in screening and accommodating dumpsters or the future use of trash compactors.

A dock elevator is required to consolidate service to Akerman Hall as well as to Shepherd Laboratories and Civil and Mineral Engineering via below-grade space or via the underground connection between ESME and Shepherd Laboratories.

SERVICE ACCESS
University of Minnesota
Minneapolis
EARTH SCIENCES &
MATERIALS ENGINEERING
FACILITY
25 0 50 100
ARCHITECTURE
MICROSCOPY ADDITION
FREIGHT ELEVATOR
SHEPHERD LABS.
CIVIL/MIN. ENGINEERING
COOKE HALL
NEW BELOW GRADE CONNECTIONS BY ESME PROJECT
CIRCULATION WITHIN EXISTING BUILDINGS
MECHANICAL ENGINEERING
AKERMAN HALL
FREIGHT ELEVATOR
PARKING LOT
NEW SERVICE FACILITY BY ESME PROJECT
GRADE LEVEL ESME BUILDING ENVELOPE
P.L. NO. C18
ELECTRICAL ENGR.
ELECTRICAL ENGINEERING AND COMPUTER SCIENCE
HARVARD ST. RAMP

Figure 4

V.B.4 Parking (Figure 5)

As a result of the ESME project, parking lot C18, east of Akerman Hall, will automatically be eliminated.

The following specific parking requirements for the ESME facility are to be provided in accordance with general campus parking policies.

- One short-term (30 minute limit) parking space for vehicles delivering core samples to the Minnesota Geological Survey shall be provided in the building's service area as a contract space.

- The Limnological Research Center's field van and boat should be accommodated within the ESME building, and access to the vehicle should be from the building's service area.

- Six handicapped and six service vehicle parking spaces are to be located in the Mechanical Engineering courtyard and will be provided for by the Electrical Engineering project. There were also 14 designated handicapped spaces in the Harvard Street Ramp.

- Four contract spaces will be provided in the Mechanical Engineering Courtyard, two for the Minnesota Geological Survey and two for the Department of Geology and Geophysics. Additional accommodation for departmental vehicles should occur in other contract facilities.

- Short-term visitor parking for map customers of the Minnesota Geological Survey is available in the Harvard Street Ramp or in the Church Street Garage. It is the perogative of the MGS to reimburse users for parking charges.

- Staff and faculty shall be accommodated in contract parking facilities.

V.B.5 Bicycles

The project shall provide 40 hoop racks (capacity for 80 bicycles) for bicycle storage. The racks should be located as close as possible to a building entrance within the view of adjacent windows. This affords indirect supervision of bicycles and is a deterrent to theft. Racks should be located directly off the street to prevent pedestrian/bicycle conflicts.

V.B.6 Street Alignments (Figure 6)

Currently, the Union Street connection between Pillsbury Drive and Washington Avenue occurs at the north and west edges of the project site. In addition to general cross-campus traffic between University and Washington Avenues, this route is used extensively by buses. From a traffic management standpoint and as recommended in the IT facilities plan, Harvard Street must be extended north to connect with Pillsbury Drive. The Harvard Street extension will be a less circuitous vehicular corridor through the central campus, and it will afford a greater opportunity to integrate ESME with the IT complex, due to reduced general traffic on Union Street.

PARKING
university of minnesota
minneapolis
EARTH SCIENCES &
MATERIALS ENGINEERING
FACILITY
50 0 100 200
VISITOR PARKING
(CHURCH STREET GARAGE)
SERVICE VEHICLE PARKING(6 SPACES)
PARKING FOR THE HANDICAPPED(6 SPACES)
DEPARTMENTAL VEHICLE PARKING(4 SPACES)
GRADE LEVEL
BUILDING
ENVELOPE
VISITOR PARKING
(HARVARD STREET RAMP)
SHORT-TERM PARKING FOR
CORE-SAMPLE DELIVERIES
(1 SPACE)
CHURCH ST. GARAGE
ARMORY
SCENE SHOP
UNIVERSITY OF MINNESOTA
FIELD HOUSE
WILLIAMS ARENA
19TH AVE SE
PARKING LOT NO C4
PARKING LOT
CIVIL MIN ENGINEERING
ARCHITECTURE
TELECOM BLDG.
SHEPHERD LABS.
MECHANICAL ENGINEERING
PARKING LOT NO. C25
ELECTRICAL ENGR.
P.L. NO. C18
ELECTRICAL ENGINEERING and COMPUTER SCIENCE
AMUNDSON HALL
P.L. NO. C26
P.L. NO. C29
NO THROUGH TRAFFIC
UNION ST.
HARVARD ST. RAMP
WASHINGTON AVE. RAMP
UNIV. RADISSON INN
PARKING LOT NO C82
PARKING LOT NO. 70
MEMORIAL STADIUM
OAK ST SE
WASHINGTON AVE. S.E.
JACKSON HALL
LYON LAB
MILLARD HALL
HEALTH SCIENCES UNIT F
MOOS HEALTH

Figure 5

STREET ALIGNMENT
CROSS-CAMPUS ROUTE
STREET TO BE REMOVED BY ESME PROJECT
NEW CONNECTION BY ESME PROJECT (HARVARD STREET EXTENSION)
ESME SITE
GRADE LEVEL BUILDING ENVELOPE
ARMORY
SCENE SHOP
UNIVERSITY OF MINNESOTA FIELD HOUSE
WILLIAMS ARENA
19TH AVE
PARKING LOT NO C86
PARKING LOT NO C
CIVIL/MIN. ENGINEERING
COOKE HALL
MEMORIAL STADIUM
SHEPHERD LABS.
MECHANICAL ENGINEERING
AKERMAN HALL
ELECTRICAL ENGR.
ELECTRICAL ENGINEERING and COMPUTER SCIENCE
LIND HALL
CHURCH ST S.E.
NO THROUGH TRAFFIC
UNION
WASHINGTON AVE. RAMP
UNIV. RADISSON INN
PARKING LOT NO C82
PARKING LOT NO 70
OAK ST S.E.
AMUNDSON HALL
P.L. NO. C26
P.L. NO. C29
WASHINGTON AVE. S.E.
JACKSON HALL
LYON LAB.
MILLARD HALL
HEALTH SCIENCES UNIT F
MOOS
50 0 100 200
E
university of minnesota
minneapolis
EARTH SCIENCES & MATERIALS ENGINEERING FACILITY

Figure 6

The ESME project is responsible for constructing this new connection between Pillsbury Drive and Harvard Street and for removing portions of Union Street. The replacement project at the Washington Avenue Ramp site will assume the responsibility for the construction of Harvard Street south of Beacon Street.

V.C SITE DEVELOPMENT REQUIREMENTS

V.C.1 Architectural Context

The ESME site is surrounded by eclectic building types including the Civil and Mineral Engineering Building, Shepherd Laboratories, Akerman Hall, the Electrical Engineering and Computer Science Building, and the Harvard Street Ramp. The new facility should be visually integrated into the campus and the IT complex relative to building height, use of building materials, and color.

The open space components of the exterior pedestrian circulation system should be strengthened by the architectural form of the ESME facility.

V.C.2 Setbacks (Figure 7)

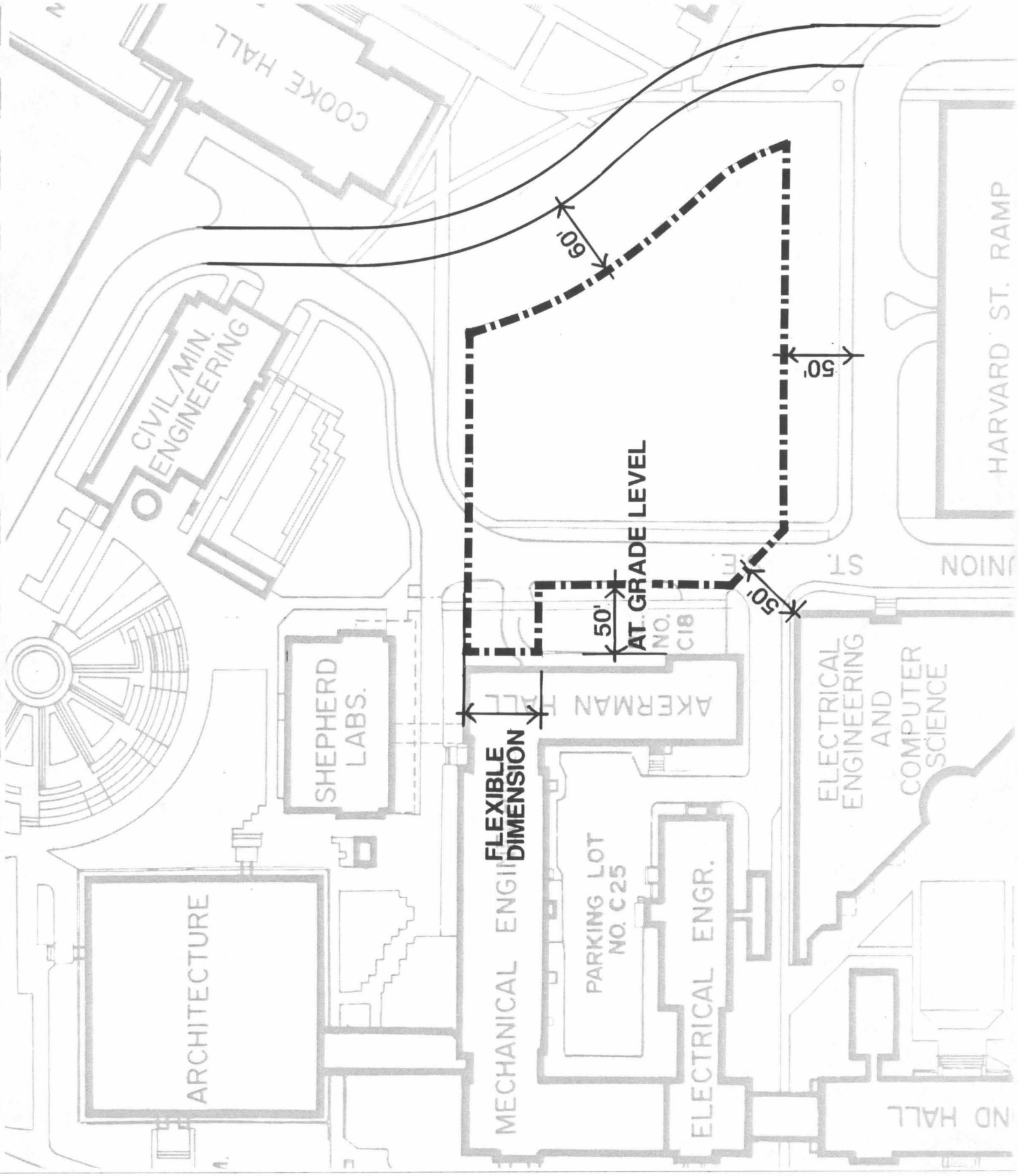
Site specific setback requirements respond to overall campus objectives. The northernmost limit of the grade portion of the ESME facility should conform to the north line of the Mechanical Engineering Building in order to allow existing east/west pedestrian circulation to pass through the IT complex to the eastern third of the campus.

Along the west side of the facility a fifty foot at grade setback should be maintained between Akerman Hall and the ESME building. The same at grade setback must be maintained between the northeast corner of EE/CS and ESME, in order to accommodate service access and a comfortable north/south pedestrian corridor. Some variation in the fifty foot buffer between Akerman Hall and ESME may be required to facilitate accessibility to the dock and to accommodate parking for the one vehicle delivering core samples.

To the south the building should retain a minimum fifty foot setback from the curb line to afford a comfortable pedestrian scale and to maximize landscaping between the ESME facility and the Harvard Street Ramp.

On the east, there should be a minimum sixty foot setback between the ESME facility and the curb line of the Harvard Street extension such that:

- there is a visual front to the IT complex;
- there is a minimal impact from the Route 52 buses;
- there is a flow of open space between ESME and the south end of the Swim Center;
- there is a comfortable buffer to any new development east of the Harvard Street extension.



SETBACKS

University of Minnesota
Minneapolis

EARTH SCIENCES & MATERIALS ENGINEERING FACILITY

Figure 7

V.C.3 Building Orientation (Figure 8)

The ESME building should be oriented to the east with a readily defined entrance along the Harvard Street extension. It should physically connect to the IT complex to the west and either totally connect below grade to Shepherd Laboratories and/or Civil and Mineral Engineering Building on the north or interface with them via tunnel connections.

A connection to the north provides for close programmatic relationships to Civil and Mineral Engineering, as well as more integrated pedestrian and service links to these facilities. The gross square footage to be gained by a total below grade connection to ESME and Shepherd Laboratories affords the flexibility of reducing building height and/or increasing setbacks on the east and south sides of the building beyond the minimum requirements.

V.C.4 Landscaping

Landscaping should address that portion of the ESME site not devoted to the facility itself. It should include all adjacent areas which are disturbed by construction. On the east side of the facility extensive landscaping should be developed to enhance the building's visibility and to create a pleasant pedestrian experience.

A "soft" landscaped open space rather than a hard surface should be developed above any potential below grade connection between ESME and Shepherd laboratories and/or the Civil and Mineral Engineering Building.

V.D SITE DATA

V.D.1 Existing Utilities (Figure 9)

As identified in Figure 9, several major utilities cross the site. They Include:

- an underground heat tunnel +/- 100 feet below grade;
- a sanitary tunnel +/- 90 feet below grade;
- a watermain along the east and west sides of Union Street, across the site, and along the north side of Beacon street; these lines are 7 feet below grade;
- a gas main along the east side of Union Street, 3 feet below grade,
- a major primary electric line 3 feet below grade along the west side of Union street.

While some utility relocation costs would be involved, they probably do not preclude the potential for building levels below grade to connect ESME with the Civil and Mineral Engineering Building and Shepherd Laboratories.

University of Minnesota
Minneapolis

BUILDING ENVELOPE

EARTH SCIENCES & MATERIALS ENGINEERING FACILITY

ARCHITECTURE

MICROSCOPY ADDITION

SHEPHERD LABS.

CIVIL/MIN. ENGINEERING

COOKE HALL

28,000 GSF
BELOW GRADE
(OPEN SPACE ABOVE)

HARVARD STREET EXTENSION

MECHANICAL ENGINEERING

AKERMAN HALL

SERVICE COURT

PARKING LOT NO. C25

P.L. NO. C18

ELECTRICAL ENGR.

70,000 GSF
AT GRADE LEVEL

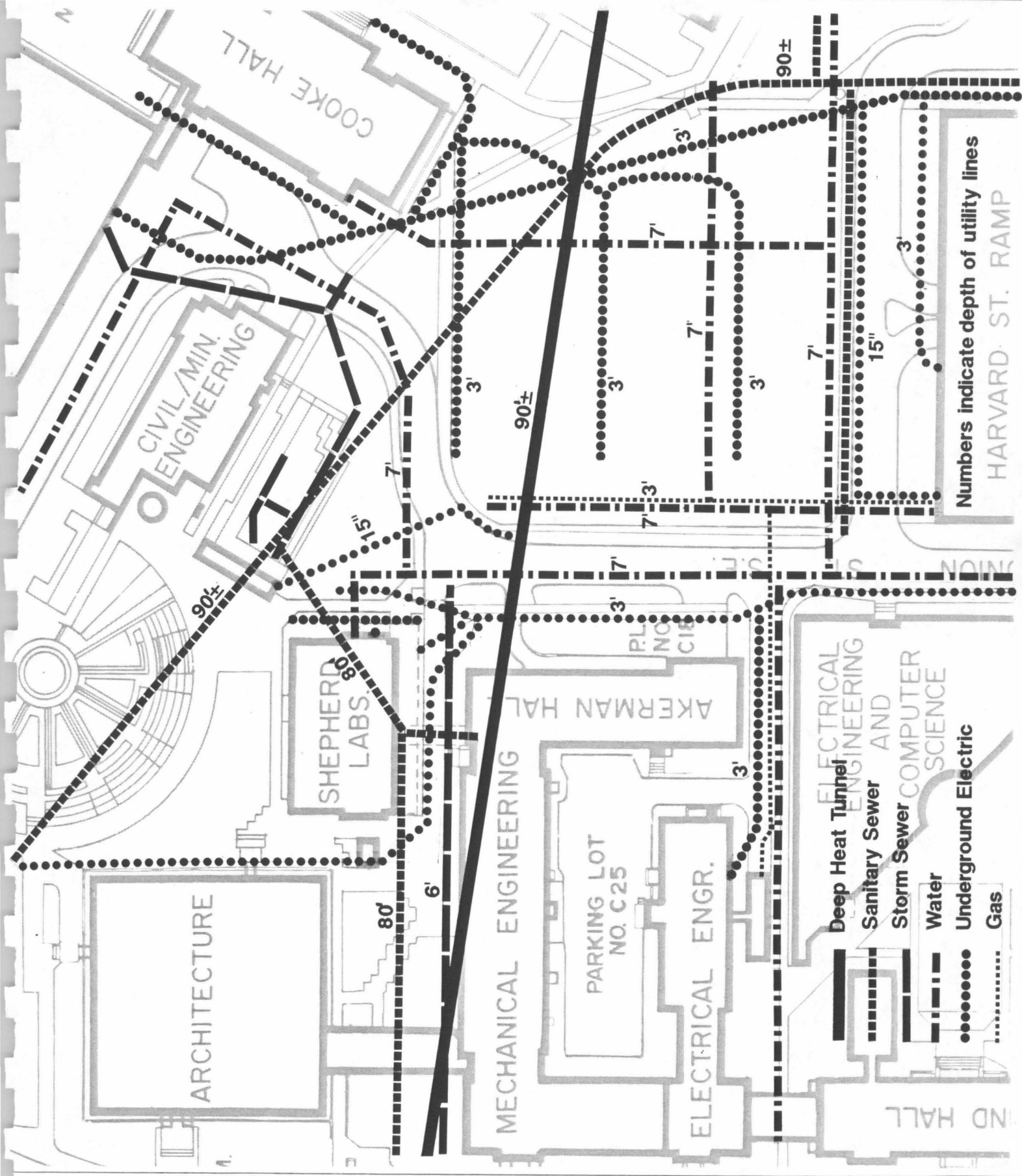
ELECTRICAL ENGINEERING AND COMPUTER SCIENCE

ST.

HARVARD ST. RAMP

25 0 50 100

Figure 8



EXISTING UTILITIES

University of Minnesota
Minneapolis

EARTH SCIENCES & MATERIALS ENGINEERING FACILITY

Figure 9

Preliminary studies indicate that the below grade service connection between Akerman Hall and the centralized ESME dock is also feasible, assuming an eight foot clear tunnel height.

VI. General Requirements

PART VI: GENERAL REQUIREMENTS

VI.A CONSERVATION OF RESOURCES

Recognizing its social and economic responsibility, the University has a specific policy that physical facilities be designed with the objective of conserving natural resources, both in initial construction and in operation. Adherence to the State of Minnesota and Federal laws, regulations, and guidelines relative to conservation of natural resources, conservation of energy, and the water and air pollution standards is required in the design, construction, and operation of all facilities of the University. Particularly, systems and materials of construction must be selected to minimize consumption of energy resources. Implementing this policy will require careful design of all construction components and systems to effectively use resources and to balance initial costs versus operating and maintenance costs. Balancing these factors, within a fixed budget, will challenge the ingenuity of professional consultants and University staff. The "University of Minnesota Standards and procedures for Construction" offers certain specific guidelines and standards. The architect, however, is not to consider these measures limiting and is encouraged to consider other methods of energy and resource conservation and bring them to the attention of the Physical Planning Office.

VI.B LONG RANGE DEVELOPMENT PLAN

The Regents of the University of Minnesota have adopted, in principle, the Long Range Development Plan for the Twin Cities Campus/Minneapolis and have inidicated the strategies enumerated therein will be the basis for all future planning decisions for the campus. It will be the architect's responsibility to demonstrate that the building plan conforms to and implements the policies and concepts described in the Long Range Development Plan. The design of the facility and its site is to acknowledge and enhance the campus environment, extend and complement circulation patterns, natural features, and existing related facilities.

VI.C BUILDING REQUIREMENTS AND CODES

The facility is to be designed and constructed in conformance with the latest amended edition of the Minnesota State Building Code. The architect is to ascertain and comply with the applicable codes and regulations, such as OSHA and HEW requirements for access by the handicapped. The architect is to comply with the latest edition of the "University of Minnesota Standards and Procedures for Construction." If programmed requirements or other University standards are at variance with codes or regulations, the architect shall notify the University's Physical Planning Office.

VI.D HANDICAPPED ACCESS

The University has a legal obligation to make all of its programs accessible to individuals with disabilities. It also has an obligation, when constructing new facilities or remodeling facilities, to bring them

(at a minimum) into compliance with the requirements of the Minnesota State Building Code, the latest edition of the ANSI handicapped access standards, and any specific access related requirements in the University's Standards and Procedures for Construction manual.

Codes and regulations typically address access into a building, movement within a building, safety features, toilet rooms, and elevators. With the exception of assembly spaces, the codes and regulations are largely silent about what happens at the point of destination. Once a person with a disability has reached the destination (be it work place, laboratory station, or desk), the using department has responsibility for determining how program access is achieved. It is the using department's responsibility to carefully assess the physical accommodations that are needed, as part of the construction project, to make their programs accessible.

VI.E SPACE UTILIZATION

The architect, during the course of the design, is to review the square footages previously developed for individual spaces against how the necessary functions can be organized in the space. The intent of this is to adequately meet the functional requirements rather than repetition of a non-functioning existing condition. Reductions or increases in square footage for a particular activity should not be made without the concurrence of the Physical Planning Office.

The architect is encouraged to bring to the attention of the Physical Planning Office areas where space can be utilized more fully if various functions can be combined or shared.

VI.F PROJECT BUDGET

Construction Cost	$42,453,000
Non-Construction Cost	$14,150,000
Total Project Cost	$56,603,000

VI.G PROJECT SCHEDULE

Program Complete	February 1990
Architect Selected	April 1990
Schematic Design Complete	September 1990
Regents Approval	October 1990
Legislative Committee Chair Approval	November 1990
Design Development Complete	April 1991
Construction Documents Complete *	July 1993
Bids Advertised	August 1993
Bids Received	September 1993
Construction Contracts Awarded	October 1993
Project Substantially Complete	October 1995

* Assumes that the balance of funding for the construction document phase and construction will be funded in the 1992 Legislative Session.

Appendix A: Individual Room Descriptions

Geology and Geophysics

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.AO.1 NET AREA: 200 ASF

ROOM NAME: DEPARTMENT HEAD OFFICE

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 1

LOCATION: In the Geology and Geophysics administrative office suite with the following rooms.

GG.AO.2 Departmental Administrator Office
GG.AO.3-4 Accountant Office
GG.AO.5 Clerical/Reception Area
GG.AO.6 Conference Room
GG.AO.7 Staff Lounge
GG.AO.8 Workroom, Copy Room
GG.AO.9 Mail Room

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

open shelving: 200 ln ft

FINISHES, FEATURES

room height clear: 8'
floor: carpet
walls: painted gypsum board
door: single
window covering: blinds
ceiling: dropped, finished
base: resilient vinyl
white board: 4 ln ft
security: lockable door
telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
double pedestal desk	1	30"x60"	YES		
desk chair	1		YES		
conference table	1	48"x96"	YES		
side chair	8		YES		
computer table	1	30"x60"	YES		
computer chair (adjustable)	1		YES		
waste basket	1		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.AO.2 NET AREA: 150 ASF

ROOM NAME: DEPARTMENTAL ADMINISTRATOR OFFICE

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 1

LOCATION: In the Geology and Geophysics administrative office suite with the following rooms.

GG.AO.1 Department Head Office
GG.AO.3-4 Accountant Office
GG.AO.5 Clerical/Reception Area
GG.AO.6 Conference Room
GG.AO.7 Staff Lounge
GG.AO.8 Workroom, Copy Room
GG.AO.9 Mail Room

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

open shelving: 120 ln ft

FINISHES, FEATURES

room height clear: 8'
floor: carpet
walls: painted gypsum board
door: single
window covering: blinds
ceiling: dropped, finished
base: resilient vinyl
white board: 4 ln ft
security: lockable door
telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
double pedestal desk	1	30"x60"	YES		
desk chair	1		YES		
conference table	1	36"x60"	YES		
side chair	4		YES		
computer table	1	30"x60"	YES		
computer chair (adjustable)	1		YES		
file cabinet (vertical)	4	4 drawer	YES		
waste basket	1		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.AO.3-4 NET AREA: 150 ASF

ROOM NAME: ACCOUNTANT OFFICE

NUMBER OF ROOMS: 2 AVERAGE NUMBER OF OCCUPANTS: 1

LOCATION: In the Geology and Geophysics administrative office suite with the following rooms.

GG.AO.1 Department Head Office
GG.AO.2 Departmental Administrator Office
GG.AO.5 Clerical/Reception Area
GG.AO.6 Conference Room
GG.AO.7 Staff Lounge
GG.AO.8 Workroom, Copy Room
GG.AO.9 Mail Room

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

open shelving: 120 ln ft

FINISHES, FEATURES

room height clear: 8'
floor: carpet
walls: painted gypsum board
door: single
window covering: blinds
ceiling: dropped, finished
base: resilient vinyl
white board: 4 ln ft
security: lockable door
telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
double pedestal desk	1	30"x60"	YES		
desk chair	1		YES		
conference table	1	36"x60"	YES		
side chair	4		YES		
computer table	1	30"x60"	YES		
computer chair (adjustable)	1		YES		
file cabinet (vertical)	4	4 drawer	YES		
waste basket	1		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.AO.5 NET AREA: 300 ASF

ROOM NAME: CLERICAL/RECEPTION AREA

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 3

LOCATION: In the Geology and Geophysics administrative office suite with the following rooms.

GG.AO.1 Department Head Office
GG.AO.2 Departmental Administrator Office
GG.AO.3-4 Accountant Office
GG.AO.6 Conference Room
GG.AO.7 Staff Lounge
GG.AO.8 Workroom, Copy Room
GG.AO.9 Mail Room

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

open shelving: 240 ln ft

FINISHES, FEATURES

room height clear: 8'
floor: carpet
walls: painted gypsum board
door: single
window covering: blinds
ceiling: dropped, finished
base: resilient vinyl
white board: 4 ln ft
security: lockable door
telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
single pedestal desk with typing return	3	30"x60"	YES		
secretarial chair	3		YES		
computer table	3	30"x60"	YES		
waste basket	3		YES		
guest chair	4		YES		
occasional table	1	30"x30"	YES		
small magazine rack	1		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.AO.6 NET AREA: 300 ASF

ROOM NAME: CONFERENCE ROOM

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 10

LOCATION: In the Geology and Geophysics administrative office suite with the following rooms.

GG.AO.1 Department Head Office
GG.AO.2 Departmental Administrator Office
GG.AO.3-4 Accountant Office
GG.AO.5 Clerical/Reception Area
GG.AO.7 Staff Lounge
GG.AO.8 Workroom, Copy Room
GG.AO.9 Mail Room

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

built-in base cabinets: 12 ln ft
built-in wall cabinets: 12 ln fit

FINISHES, FEATURES

room height clear: 8'
floor: carpet
walls: painted gypsum board
door: single
window covering: blinds
ceiling: dropped, finished
base: resilient vinyl
white board: 4 ln ft
security: lockable door
telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
conference table	1	6'x12'	YES		
side chair	10		YES		
waste basket	2		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.AO.7 NET AREA: 150 ASF

ROOM NAME: STAFF LOUNGE

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 1

LOCATION: In the Geology and Geophysics administrative office suite with the following rooms.

GG.AO.1 Department Head Office
GG.AO.2 Departmental Administrator Office
GG.AO.3-4 Accountant Office
GG.AO.5 Clerical/Reception Area
GG.AO.6 Conference Room
GG.AO.8 Workroom, Copy Room
GG.AO.9 Mail Room

SERVICES

electrical: 110 volt single phase
hot and cold water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
ventilation fan

CASEWORK, FIXTURES

built-in base cabinets: 6 ln ft
built-in wall cabinets: 6 ln ft

FINISHES, FEATURES

room height clear: 8'	ceiling: dropped, finished
floor: carpet	base: resilient vinyl
walls: painted gypsum board	white board: 4 ln ft
door: single	security: lockable door
window covering: blinds	telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lunch table	1	48"x48"	YES		
side chair	4		YES		
refrigerator	1		YES		
microwave	1		YES		
waste basket	1		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.AO.8 NET AREA: 300 ASF

ROOM NAME: WORKROOM, COPY ROOM

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 1

LOCATION: In the Geology and Geophysics administrative office suite with the following rooms.

GG.AO.1 Department Head Office
GG.AO.2 Departmental Administrator Office
GG.AO.3-4 Accountant Office
GG.AO.5 Clerical/Reception Area
GG.AO.6 Conference Room
GG.AO.7 Staff Lounge
GG.AO.9 Mail Room

SERVICES

electrical: 110 volt single phase
208 single phase: 1 outlet for copy machine
communications: voice and data
lighting: fluorescent
climate control
ventilation for copy machine

CASEWORK, FIXTURES

open shelving: 1n ft

FINISHES, FEATURES

room height clear: 8'
floor: carpet
walls: painted gypsum board
door: single
window covering: blinds
ceiling: dropped, finished
base: resilient vinyl
white board: 4 ln ft
security: lockable door
telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
file cabinet (vertical)	10	4 drawer	YES		
storage cabinets	6	36"x72"	YES		
work table	2	30"x60"	YES		
waste basket	1		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.AO.9 NET AREA: 300 ASF

ROOM NAME: MAIL ROOM

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 1

LOCATION: In the Geology and Geophysics administrative office suite with the following rooms.

GG.AO.1 Department Head Office
GG.AO.2 Departmental Administrator Office
GG.AO.3-4 Accountant Office
GG.AO.5 Clerical/Reception Area
GG.AO.6 Conference Room
GG.AO.7 Staff Lounge
GG.AO.8 Workroom, Copy Room

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

100 built-in mail boxes (4" X 12")

FINISHES, FEATURES

room height clear: 8'
floor: carpet
walls: painted gypsum board
door: single
window covering: blinds
ceiling: dropped, finished
base: resilient vinyl
white board: 4 ln ft
security: lockable door
telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
work table	2	30"x60"	YES		
waste basket	1		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.FO.1-20 NET AREA: 180 ASF

ROOM NAME: FACULTY OFFICE

NUMBER OF ROOMS: 20 AVERAGE NUMBER OF OCCUPANTS: 1

LOCATION: In the office portions of the Geology and Geophysics office/laboratory modules with the following other offices.

GG.TO.1-12 Teaching Assistant Office
GG.RO.1-26 Research Assistant Office
GG.OO.1-11 Other Office

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

open shelving: 200 ln ft

FINISHES, FEATURES

room height clear: 8'
floor: carpet
walls: painted gypsum board
door: single
window covering: blinds
ceiling: dropped, finished
base: resilient vinyl
white board: 4 ln ft
security: lockable door
telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
double pedestal desk	1	30"x60"	YES		
desk chair	1		YES		
conference table	1	30"x60"	YES		
side chair	2		YES		
computer table	1	30"x60"	YES		
computer chair (adjustable)	1		YES		
file cabinet (vertical)	4	4 drawer	YES		
waste basket	1		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.TO.1-12 NET AREA: 150 ASF

ROOM NAME: TEACHING ASSISTANT OFFICE

NUMBER OF ROOMS: 12 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: In the office portions of the Geology and Geophysics office/laboratory modules with the following other offices.

GG.FO.1-20 Faculty Office
GG.RO.1-26 Research Assistant Office
GG.OO.1-11 Other Office

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

open shelving: 60 ln ft

FINISHES, FEATURES

room height clear: 8'	ceiling: dropped, finished
floor: carpet	base: resilient vinyl
walls: painted gypsum board	white board: 4 ln ft
door: single	security: lockable door
window covering: blinds	telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
double pedestal desk	2	30"x60"	YES		
desk chair	2		YES		
side chair	2		YES		
computer table	2	30"x60"	YES		
computer chair (adjustable)	2		YES		
file cabinet (vertical)	2	2 drawer	YES		
waste basket	2		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.RO.1-26 NET AREA: 150 ASF

ROOM NAME: RESEARCH ASSISTANT OFFICE

NUMBER OF ROOMS: 26 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: In the office portions of the Geology and Geophysics office/laboratory modules with the following other offices.

GG.FO.1-20 Faculty Office
GG.TO.1-12 Teaching Assistant Office
GG.OO.1-11 Other Office

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

open shelving: 60 ln ft

FINISHES, FEATURES

room height clear: 8'
floor: carpet
walls: painted gypsum board
door: single
window covering: blinds
ceiling: dropped, finished
base: resilient vinyl
white board: 4 ln ft
security: lockable door
telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
double pedestal desk	2	30"x60"	YES		
desk chair	2		YES		
side chair	2		YES		
computer table	2	30"x60"	YES		
computer chair (adjustable)	2		YES		
file cabinet (vertical)	2	2 drawer	YES		
waste basket	2		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.OO.1-12 NET AREA: 150 ASF

ROOM NAME: OTHER OFFICE

NUMBER OF ROOMS: 12 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: In the office portions of the Geology and Geophysics office/laboratory modules with the following other offices.

GG.FO.1-20 Faculty Office
GG.TO.1-12 Teaching Assistant Office
GG.RO.1-26 Research Assistant Office

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

open shelving: 60 ln ft

FINISHES, FEATURES

room height clear: 8'	ceiling: dropped, finished
floor: carpet	base: resilient vinyl
walls: painted gypsum board	white board: 4 ln ft
door: single	security: lockable door
window covering: blinds	telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
double pedestal desk	2	30"x60"	YES		
desk chair	2		YES		
side chair	2		YES		
computer table	2	30"x60"	YES		
computer chair (adjustable)	2		YES		
file cabinet (vertical)	2	2 drawer	YES		
waste basket	2		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.IL.1 NET AREA: 840 ASF

ROOM NAME: MINERALOGY LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 24

LOCATION: With the following instructional labs in Group A, Subgroup 1:

GG.IL.2 Petrology Laboratory
GG.IL.3 Physical Geology I Laboratory
GG.IL.4 Physical Geology II Laboratory

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: one outlet each wall
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 6 ln ft
4' fume hood with sink, acid drain, CW, HW, N, NG, comp air, vacuum, and cabinet beneath for acids and flammables

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	12	30" X 96"	YES		
lab stool	24		YES		
rock and specimin cabinet	10	30X30X36"	YES		

FACULTY CONTACT: Jim Stout

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.IL.2 NET AREA: 840 ASF

ROOM NAME: PETROLOGY LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 24

LOCATION: With the following instructional labs in Group A, Subgroup 1:

GG.IL.1 Mineralogy Laboratory
GG.IL.3 Physical Geology I Laboratory
GG.IL.4 Physical Geology II Laboratory

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: one outlet each wall
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 6 ln ft
4' fume hood with sink, acid drain, CW, HW, N, NG, comp air, vacuum, and cabinet beneath for acids and flammables

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	12	30" X 96"	YES		
lab stool	24		YES		

FACULTY CONTACT: Jim Stout

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.IL.3 NET AREA: 840 ASF

ROOM NAME: PHYSICAL GEOLOGY LABORATORY I

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 24

LOCATION: With the following instructional labs in Group A, Subgroup 1:

GG.IL.1 Mineralogy Laboratory
GG.IL.2 Petrology Laboratory
GG.IL.4 Physical Geology II Laboratory

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: one outlet each wall
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
floor drain
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 6 ln ft

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	12	30" X 96"	YES		
lab stool	24		YES		
storage cabinet	8	36" X 72"	YES		

FACULTY CONTACT: Jim Stout

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.IL.4 NET AREA: 840 ASF

ROOM NAME: PHYSICAL GEOLOGY II LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 24

LOCATION: With the following instructional labs in Group A, Subgroup 1:

GG.IL.1 Mineralogy Laboratory
GG.IL.2 Petrology Laboratory
GG.IL.3 Physical Geology I Laboratory

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: one outlet each wall
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 6 ln ft

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	12	30" X 96"	YES		
lab stool	25		YES		

FACULTY CONTACT: Jim Stout

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.IL.5 NET AREA: 840 ASF

ROOM NAME: EARTH HISTORY LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 12

LOCATION: With Group E laboratories; adjacent to:

GG.RL.45 Paleontology Laboratory

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: one outlet each wall
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 6 ln ft
built-in full height storage cabinets: 6 ln ft
4' fume hood with sink, acid drain, CW, HW, N, NG, comp air, vacuum, and cabinet beneath for acids and flammables

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	6	30" X 96"	YES		
lab stool	12		YES		

FACULTY CONTACT: Jim Stout

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.IL.6 NET AREA: 840 ASF

ROOM NAME: STRUCTURAL GEOLOGY LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 24

LOCATION: With Group D laboratories; adjacent to:

GG.RL.36 Structurology Laboratory I
GG.RL.37 Structurology Laboratory II

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: one outlet each wall
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 6 ln ft

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	12	30" X 96"	YES		
lab stool	24		YES		
rock and specimin cabinet	6	30X30X36"	YES		

FACULTY CONTACT: Jim Stout

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.IL.7 NET AREA: 840 ASF

ROOM NAME: SEDIMENTOLOGY LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 24

LOCATION: With Group E laboratories; near to:

GG.RL.40 Basin Analysis Laboratory
GG.RL.41 Sedimentary Petrology Laboratory

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: one outlet each wall
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
floor drain
lab will produce unusual dirt
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 40 ln ft
built-in wall cabinets: 30 ln ft
2 center islands with base cabinets underneath: each 5' X 10'
4' fume hood with sink, acid drain, CW, HW, N, NG, comp air, vacuum, and cabinet beneath for acids and flammables

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab stool	24		YES		
storage cabinet	1	36" X 72"	YES		

FACULTY CONTACT: Jim Stout

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.IL.8-9 NET AREA: 560 ASF

ROOM NAME: COMPUTATIONAL LABORATORY

NUMBER OF ROOMS: 2 AVERAGE NUMBER OF OCCUPANTS: 18

LOCATION: With other computer laboratories in Group N.

SERVICES

electrical: 110 volt single phase: plug mold, bench height
communications: voice and data
lighting: fluorescent (indirect)
climate control

CASEWORK, HOODS, FIXTURES

FINISHES, FEATURES

room height clear: 12'	ceiling: dropped, finished
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
computer table	18	30" X 60"	YES		
computer chair (adjustable)	18		YES		

FACULTY CONTACT: J. Stout

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.RL.1 NET AREA: 1120 ASF

ROOM NAME: ROCK MECHANICS LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 5

LOCATION: With other Geology and Geophysics laboratories in Group A.

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: 4 outlets on 2 walls
208 volt three phase: 2 outlets on 2 walls
heavy-duty electrical: 10 kW
electrical instrumentation ground
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
emergency shower/eye wash near fume hood
communications: voice and data
lighting: fluorescent
climate control
vibration isolation
floor drain
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 6 ln ft
4' fume hood with sink, acid drain, CW, HW, N, NG, comp air, vacuum, and cabinet beneath for acids and flammables

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	4	30" X 60"	YES		
lab stool	4		YES		
computer table	2	30" X 60"	YES		
computer chair (adjustable)	2		YES		

FACULTY CONTACT: S. Karato

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.RL.2 NET AREA: 560 ASF

ROOM NAME: PALEOMAGNETISM: CONVENTIONAL AND SUPERCONDUCTING LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 5

LOCATION: With the following laboratories in Group A, Subgroup 3:

GG.RL.3 Rock Magnetism: VSMS Susceptometer Laboratory
GG.RL.4 Rock Magnetism: Magneto-Optic Imager Laboratory
GG.RL.5 Rock Magnetism: Mossbauer Spectrometer Laboratory

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: in adjacent service core
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: non-magnetic, within magnetic shield
climate control
magnetic shielding: 2 layer mu-metal or non-magnetic framing
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 48 ln ft (non-magnetic)
built-in wall cabinets: 24 ln ft (non-magnetic)

FINISHES, FEATURES

room height clear: 12' ceiling: open to floor above
floor: vinyl composition tile base: resilient vinyl
walls: painted gypsum board floor loading: 125 psf
door: 36" wide with 24" fixed leaf security: lockable door
white board: 8 ln ft wall clock and telephone

OTHER REQUIREMENTS

Two layer mu-metal shield on non-magnetic framing will yield a satisfactorily low magnetic field. Lighting and ventilation must take this shielding into account.

MOVABLE EQUIPMENT: QTY SIZE PURCH EXIST COMMENTS

FACULTY CONTACT: J. Marvin, S. Banerjee

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.RL.3 NET AREA: 560 ASF

ROOM NAME: ROCK MAGNETISM: VSMS SUSCEPTOMETER LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 7

LOCATION: With the following laboratories in Group A, Subgroup 3:

GG.RL.2 Paleomagnetism: Conventional and Superconducting Laboratory
GG.RL.4 Rock Magnetism: Magneto-Optic Imager Laboratory
GG.RL.5 Rock Magnetism: Mossbauer Spectrometer Laboratory

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase:
208 volt three phase:
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
emergency shower/eye wash near fume hood
communications: voice and data
lighting: fluorescent
climate control
chilled water
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 24 ln ft
built-in wall cabinets: 24 ln ft
4' fume hood with sink, acid drain, CW, HW, N, NG, comp air, vacuum, and cabinet beneath for acids and flammables

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS

FACULTY CONTACT: J. Marvin, S. Banerjee

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.RL.4 NET AREA: 280 ASF

ROOM NAME: ROCK MAGNETISM: MAGNETO-OPTIC IMAGER LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: With the following laboratories in Group A, Subgroup 3:

GG.RL.2 Paleomagnetism: Conventional and Superconducting Laboratory
GG.RL.3 Rock Magnetism: VSMS Susceptometer Laboratory
GG.RL.5 Rock Magnetism: Mossbauer Spectrometer Laboratory

SERVICES

electrical: 110 volt single phase: plug mold, bench height
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 24 ln ft
built-in wall cabinets: 24 ln ft

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
air pillow table	1	36" X 60"	YES		

FACULTY CONTACT: J. Marvin, S. Banerjee

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.RL.5 NET AREA: 280 ASF

ROOM NAME: ROCK MAGNETISM: MOSSBAUER SPECTROMETER LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 5

LOCATION: With the following laboratories in Group A, Subgroup 3:

GG.RL.2 Paleomagnetism: Conventional and Superconducting Laboratory
GG.RL.3 Rock Magnetism: VSMS Susceptometer Laboratory
GG.RL.4 Rock Magnetism: Magneto-Optic Imager Laboratory

SERVICES

electrical: 110 volt single phase: plug mold, bench height
208 volt three phase:
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
chilled water
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 20 ln ft
built-in wall cabinets: 20 ln ft

FINISHES, FEATURES

room height clear: 12'
ceiling: open to floor above
floor: vinyl composition tile
base: resilient vinyl
walls: painted gypsum board
floor loading: 125 psf
door: 36" wide with 24" fixed leaf
security: lockable door
white board: 8 ln ft
wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS

FACULTY CONTACT: J. Marvin, S. Banerjee

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.RL.6 NET AREA: 560 ASF

ROOM NAME: DIAMOND ANVIL LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: Adjacent to the following laboratories in Group A, Subgroup 4:

GG.RL.7 Thermal Stresses Laboratory
GG.RL.8 Sample Preparation Laboratory

Near to: GG.RL.9 Field Geology Laboratory

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: 30 amp, one outlet each wall
208 volt three phase: 50 amp, two outlets
special electrical grounding
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
chilled water
floor drain
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 24 ln ft
built-in wall cabinets: 24 ln ft
open shelving: 60 ln ft

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	4	30" X 60"	YES		
lab stool	4		YES		
computer table	1	30" X 60"	YES		
computer chair (adjustable)	1		YES		

FACULTY CONTACT: James Stout

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.RL.7 NET AREA: 560 ASF

ROOM NAME: THERMAL STRESSES LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: Adjacent to the following laboratories in Group A, Subgroup 4:

GG.RL.6 Diamond Anvil Laboratory
GG.RL.8 Sample Preparation Laboratory

Near to: GG.RL.9 Field Geology Laboratory

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: 30 amp, one outlet each wall
208 volt three phase: 50 amp, two outlets
special electrical grounding
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
chilled water
floor drain
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 24 ln ft
built-in wall cabinets: 24 ln ft
open shelving: 60 ln ft
4' fume hood with sink, acid drain, CW, HW, N, NG, comp air, vacuum, and cabinet beneath for acids and flammables

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	4	30" X 60"	YES		
lab stool	4		YES		
computer table	1	30" X 60"	YES		
computer chair (adjustable)	1		YES		

FACULTY CONTACT: James Stout

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.RL.8 NET AREA: 280 ASF

ROOM NAME: SAMPLE PREPARATION LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: Adjacent to the following laboratories in Group A, Subgroup 4:

GG.RL.6 Diamond Anvil Laboratory
GG.RL.7 Thermal Stresses Laboratory

Near to: GG.RL.9 Field Geology Laboratory

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: one outlet each wall
special electrical grounding
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 12 ln ft
built-in wall cabinets: 12 ln ft
built-in full height storage cabinets: 4 ln ft
6' fume hood with sink, acid drain, CW, HW, N, NG, comp air, vacuum, and cabinet beneath for acids and flammables

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	2	30" X 60"	YES		
lab cart	1	30" X 42"	YES		
lab stool	2		YES		
computer table	1	30" X 60"	YES		
computer chair (adjustable)	1		YES		

FACULTY CONTACT: James Stout

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.RL.9 NET AREA: 280 ASF

ROOM NAME: FIELD GEOLOGY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: With the following laboratories in Group A, Subgroup 4:

GG.RL.6 Diamond Anvil Laboratory
GG.RL.7 Thermal Stresses Laboratory
GG.RL.8 Sample Preparation Laboratory

SERVICES

electrical: 110 volt single phase: plug mold, bench height
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 6 ln ft
open shelving: 120 ln ft

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
work table	2	36" X 96"	YES		
file cabinet (vertical)	3	4 drawer	YES		
map cabinet	1	5 drawer		YES	
rock cabinet	4	16 drawer		YES	

FACULTY CONTACT: James Stout

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.RL.10 NET AREA: 560 ASF

ROOM NAME: COMPUTING LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 6

LOCATION: With other computer laboratories in Group N, Subgroup 2.

SERVICES

electrical: 110 volt single phase: plug mold, bench height
communications: voice and data
lighting: fluorescent (indirect)
climate control

CASEWORK, HOODS, FIXTURES

FINISHES, FEATURES

room height clear: 12'	ceiling: dropped, finished
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
computer table	4	30" X 72"	YES		
computer chair (adjustable)	4		YES		

FACULTY CONTACT: David Yuen

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.RL.11 NET AREA: 560 ASF

ROOM NAME: PETROLOGY LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 4

LOCATION: With other Geology and Geophysics Laboratories in Group A.

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: one outlet each wall
208 volt three phase: two outlets opposite walls
heavy-duty electrical: 15 kW
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 24 ln ft
built-in full height storage cabinets: 4 ln ft
4' fume hood with sink, acid drain, CW, HW, N, NG, comp air, vacuum, and cabinet beneath for acids and flammables

FINISHES, FEATURES

room height clear: 12' ceiling: open to floor above
floor: vinyl composition tile base: resilient vinyl
walls: painted gypsum board floor loading: 125 psf
door: 36" wide with 24" fixed leaf security: lockable door
white board: 8 ln ft wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	2	36" X 72"	YES		
lab stool	2		YES		
computer table	1	30" X 60"	YES		
computer chair (adjustable)	1		YES		

FACULTY CONTACT: Paul Weiblen

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.RL.12 NET AREA: 280 ASF

ROOM NAME: ROCK MINERAL PHYSICS LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 8

LOCATION: With the following laboratories in Group A, Subgroup 6:

GG.RL.13 Rock Mineral Physics Laboratory (nano-indentor)
GG.RL.14 Rock Mineral Physics Laboratory (high temperature furnaces)
GG.RL.15 Rock Mineral Physics Laboratory
GG.RL.16 Rock Mineral Physics Laboratory

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: 4 30 amp outlets, 1 100 amp outlet
208 volt three phase: 2 60 amp outlets
special electrical grounding
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
chilled water
vibration isolation: for nano-indentor
vacuum supply in service chase
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 36 ln ft
built-in wall cabinets: 24 ln ft
built-in full height storage cabinets: 24 ln ft
4' fume hood with sink, acid drain, CW, HW, N, NG, comp air, vacuum, and cabinet beneath for acids and flammables

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	4	36" X 96"	YES		
lab stool	4		YES		
computer table	2	30" X 60"	YES		
computer chair (adjustable)	2		YES		

FACULTY CONTACT: David Kohlstedt

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.RL.13 NET AREA: 560 ASF

ROOM NAME: ROCK MINERAL PHYSICS LABORATORY: (NANO-INDENTOR)

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 8

LOCATION: With the following laboratories in Group A, Subgroup 6:

GG.RL.12 Rock Mineral Physics Laboratory
GG.RL.14 Rock Mineral Physics Laboratory (high temperature furnaces)
GG.RL.15 Rock Mineral Physics Laboratory
GG.RL.16 Rock Mineral Physics Laboratory

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: 4 30 amp outlets, 1 100 amp outlet
208 volt three phase: 2 60 amp outlets
special electrical grounding
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
chilled water
vacuum supply in service chase
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 36 ln ft
built-in wall cabinets: 24 ln ft
built-in full height storage cabinets: 24 ln ft

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	4	36" X 96"	YES		
lab stool	4		YES		
computer table	2	30" X 60"	YES		
computer chair (adjustable)	2		YES		
vibration isolation pad for nano-indentor	1		YES		

FACULTY CONTACT: David Kohlstedt

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.RL.14 NET AREA: 560 ASF

ROOM NAME: ROCK MINERAL PHYSICS LABORATORY: (HIGH TEMPERATURE FURNACES)

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 8

LOCATION: With the following laboratories in Group A, Subgroup 6:

GG.RL.12 Rock Mineral Physics Laboratory
GG.RL.13 Rock Mineral Physics Laboratory (nano-indentor)
GG.RL.15 Rock Mineral Physics Laboratory
GG.RL.16 Rock Mineral Physics Laboratory

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: 4 30 amp outlets, 1 100 amp outlet
208 volt three phase: 2 60 amp outlets
special electrical grounding
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control: heavy duty for furnace
chilled water
vibration isolation: for nano-indentor
floor drain
vacuum supply in service chase
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 36 ln ft
built-in wall cabinets: 24 ln ft
built-in full height storage cabinets: 24 ln ft
8' fume hood with sink, acid drain, CW, HW, N, NG, comp air, vacuum, and cabinet beneath for acids and flammables

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	4	36" X 96"	YES		
lab stool	4		YES		
computer table	2	30" X 60"	YES		
computer chair (adjustable)	2		YES		

FACULTY CONTACT: David Kohlstedt

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.RL.15 NET AREA: 560 ASF

ROOM NAME: ROCK MINERAL PHYSICS LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 8

LOCATION: With the following laboratories in Group A, Subgroup 6:

GG.RL.12 Rock Mineral Physics Laboratory
GG.RL.13 Rock Mineral Physics Laboratory (nano-indentor)
GG.RL.14 Rock Mineral Physics Laboratory (high temperature furnaces)
GG.RL.16 Rock Mineral Physics Laboratory

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: 4 30 amp outlets, 1 100 amp outlet
208 volt three phase: 2 60 amp outlets
special electrical grounding
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
chilled water
vibration isolation: for nano-indentor
floor drain
vacuum supply in service chase
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 36 ln ft
built-in wall cabinets: 24 ln ft
built-in full height storage cabinets: 24 ln ft

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	4	36" X 96"	YES		
lab stool	4		YES		
computer table	2	30" X 60"	YES		
computer chair (adjustable)	2		YES		

FACULTY CONTACT: David Kohlstedt

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.RL.16 NET AREA: 560 ASF

ROOM NAME: ROCK MINERAL PHYSICS LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 8

LOCATION: With the following laboratories in Group A, Subgroup 6:

GG.RL.12 Rock Mineral Physics Laboratory
GG.RL.13 Rock Mineral Physics Laboratory (nano-indentor)
GG.RL.14 Rock Mineral Physics Laboratory (high temperature furnaces)
GG.RL.15 Rock Mineral Physics Laboratory

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: 4 30 amp outlets, 1 100 amp outlet
208 volt three phase: 2 60 amp outlets
special electrical grounding
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control: heavy duty for furnace
chilled water
vibration isolation: for nano-indentor
vacuum supply in service chase
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 36 ln ft
built-in wall cabinets: 24 ln ft
built-in full height storage cabinets: 24 ln ft

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	4	36" X 96"	YES		
lab stool	4		YES		
computer table	2	30" X 60"	YES		
computer chair (adjustable)	2		YES		

FACULTY CONTACT: David Kohlstedt

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.RL.17 NET AREA: 560 ASF

ROOM NAME: HYDROTHERMAL LABORATORY I

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 4

LOCATION: With the following laboratories in Group B, Subgroup 1:

GG.RL.18 Hydrothermal Laboratory II
GG.RL.19 Analytical Geochemistry Laboratory (Wet)
GG.RL.20 Analytical Geochemistry: Instrumental Laboratory

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: one outlet on each wall
208 volt three phase: 2 outlets on opposite walls
heavy-duty electrical: 15 kW
CW and HW at base cabinet with sink
N, comp air, vacuum, deionized water at base cabinet
emergency shower/eye wash near fume hood
communications: voice and data
lighting: fluorescent
climate control
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 6 ln ft
4' fume hood with sink, acid drain, CW, HW, N, comp air, vacuum, and cabinet beneath for acids and flammables

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS

FACULTY CONTACT: W. E. Seyfried

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.RL.18 NET AREA: 560 ASF

ROOM NAME: HYDROTHERMAL LABORATORY II

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 4

LOCATION: With the following laboratories in Group B, Subgroup 1:

GG.RL.17 Hydrothermal Laboratory I
GG.RL.19 Analytical Geochemistry Laboratory (Wet)
GG.RL.20 Analytical Geochemistry: Instrumental Laboratory

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: one outlet on each wall
208 volt three phase: 2 outlets on opposite walls
heavy-duty electrical: 15 kW
CW and HW at base cabinet with sink
N, comp air, vacuum, deionized water at base cabinet
emergency shower/eye wash near fume hood
communications: voice and data
lighting: fluorescent
climate control
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 6 ln ft
4' fume hood with sink, acid drain, CW, HW, N, NG, comp air, vacuum, and cabinet beneath for acids and flammables

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS

FACULTY CONTACT: W. Seyfried

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.RL.19 NET AREA: 560 ASF

ROOM NAME: ANALYTICAL GEOCHEMISTRY LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 4

LOCATION: Adjacent to: GG.RL.20 Analytical Geochemistry: Instrumental Laboratory

With the following laboratories in Group B, Subgroup 1:

GG.RL.17 Hydrothermal Laboratory I
GG.RL.18 Hydrothermal Laboratory II

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: 1 outlet on each wall
208 volt three phase: 2 outlets on opposte walls
electrical instrumentation ground
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
emergency shower/eye wash near fume hood
communications: voice and data
lighting: fluorescent
climate control
floor drain
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 48 ln ft
built-in wall cabinets: 48 ln ft
built-in full height storage cabinets: 4 ln ft
2 4' fume hoods with sink, acid drain, CW, HW, N, NG, comp air, vacuum, and cabinet beneath for acids and flammables
6' laminar flow clean bench (exhausted)
canopy hood for venting drying ovens

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	1	36" X 72"			
lab cart	1	30" X 36"			
lab stool (adjustable)	4				
white board	1	4 ln ft			
refrigerator	1	20 cubic ft			

FACULTY CONTACT: W. Seyfried

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.RL.20 NET AREA: 560 ASF

ROOM NAME: ANALYTICAL GEOCHEMISTRY: INSTRUMENTAL LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: Adjacent to: GG.RL.19 Analytical Geochemistry Laboratory (Wet)

With the following laboratories in Group B, Subgroup 1:

GG.RL.17 Hydrothermal Laboratory I
GG.RL.18 Hydrothermal Laboratory II

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: 1 outlet on each wall
208 volt three phase: 2 outlets on opposite walls
heavy-duty electrical: 5 kW
electrical instrumentation ground
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
chilled water
vibration isolation:
floor drain
acid drain
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 18 ln ft
built-in wall cabinets: 10 ln ft

FINISHES, FEATURES

room height clear: 12'
floor: vinyl composition tile
walls: painted gypsum board
door: 36" wide with 24" fixed leaf
white board: 8 ln ft
room must be windowless
ceiling: open to floor above
base: resilient vinyl
floor loading: 125 psf
security: lockable door
wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	2	36" X 72"	YES		
lab cart	1	30" X 42"	YES		
lab stool	2		YES		
computer table	2	30" X 60"	YES		
computer chair (adjustable)	2		YES		
file cabinets	1		YES		

FACULTY CONTACT: Seyfried

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.RL.21 NET AREA: 840 ASF

ROOM NAME: RADIOGENIC ISOTOPE GEOCHEMISTRY: MASS SPECTROMETER ROOM

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 3

LOCATION: Adjacent to: GG.RL.22 Radiogenic Isotope Geochemistry: Clean Chemistry Laboratory

With the following laboratories in Group B, Subgroup 2:

GG.RL.23 Radiogenic Isotope Geochemistry: Support Room for Chemistry
GG.RL.24 Radiogenic Isotope Geochemistry: Electronics Room

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: 2 outlets
heavy-duty electrical: 15 kW
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: sealed fluorescent light units
climate control
chilled water
cleanliness: class 100 air supply; air must pass through charcoal filter before hepa filters; room does not need to be laminar flow and high number of air changes is not required; positive pressure is required
floor drain
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 20 ln ft
built-in full height storage cabinets: 8 ln ft
6' laminar flow clean bench (exhausted)

FINISHES, FEATURES

room height clear: 12'

floor: epoxy	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

ceiling: dropped ceiling with fiberglass supports and vinyl covered plates; plates must be sealed so the ceiling is air-tight.

OTHER REQUIREMENTS

Needs anteroom. Needs positive pressure relative to adjoining rooms and manometers to monitor pressure. No pipes servicing other rooms should

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go through the room or through the space above the dropped ceiling. Cannot be loctaed near large magnetic fields or large electrical currents. Halon fire system required.

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
computer table	2	30" X 60"		YES	
computer chair (adjustable)	3		YES		

FACULTY CONTACT: Larry Edwards

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.RL.22 NET AREA: 840 ASF

ROOM NAME: RADIOGENIC ISOTOPE GEOCHEMISTRY: CLEAN CHEMISTRY LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 4

LOCATION: Adjacent to:

GG.RL.21 Radiogenic Isotope Geochemistry: Mass Spectrometer Room
GG.RL.23 Radiogenic Isotope Geochemistry: Support Room for Chemistry

With: GG.RL.24 Radiogenic Isotope Geochemistry: Electronics Room

SERVICES

electrical: 110 volt single phase: plug mold, bench height
CW and HW at base cabinet with sink
N, comp air, vacuum, deionized water at base cabinet
emergency shower/eye wash near fume hood
communications: voice and data
lighting: sealed fluorescent units
climate control
chilled water
cleanliness: class 100 air supply; air must pass through charcoal filter before hepa filters; room does not need to be laminar flow and high number of air changes is not required; positive pressure is required
floor drain
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 50 ln ft (must be non-metallic with corrosion tops)
built-in full height storage cabinets: 10 ln ft (must be non-metallic)
5 6' all polypropylene fume hoods with sink, acid drain, CW, HW, N, NG, comp air, vacuum, and cabinet beneath for acids and flammables
all polypropylene 6' laminar flow clean bench (exhausted)

FINISHES, FEATURES

room height clear: 12'

floor: epoxy	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

ceiling: dropped ceiling with fiberglass supports and vinyl covered plates; plates must be sealed so the ceiling is air-tight.

OTHER REQUIREMENTS

Needs anteroom. Needs positive pressure relative to adjoining rooms and

(continued on next page)

manometers to monitor pressure. No pipes servicing other rooms should go through the room or through the space above the dropped ceiling. Cannot be located near large magnetic fields or large electrical currents. No metal in room. No recirculated air in room.

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS

FACULTY CONTACT: Larry Edwards

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.RL.23 NET AREA: 280 ASF

ROOM NAME: RADIOGENIC ISOTOPE GEOCHEMISTRY: SUPPORT ROOM FOR CHEMISTRY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 1

LOCATION: Adjacent to: GG.RL.22 Radiogenic Isotope Geochemistry: Clean Chemistry Laboratory

With the following laboratories in Group B, Subgroup 2:

GG.RL.21 Radiogenic Isotope Geochemistry: Mass Spectrometer Room
GG.RL.24 Radiogenic Isotope Geochemistry: Electronics Room

SERVICES

electrical: 110 volt single phase: plug mold, bench height
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: sealed fluorescent units
climate control
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 6 ln ft

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS

FACULTY CONTACT: Larry Edwards

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.RL.24 NET AREA: 280 ASF

ROOM NAME: RADIOGENIC ISOTOPE GEOCHEMISTRY: ELECTRONICS ROOM

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 1

LOCATION: With the following laboratories in Group B, Subgroup 2:

GG.RL.21 Radiogenic Isotope Geochemistry: Mass Spectrometer Room
GG.RL.22 Radiogenic Isotope Geochemistry: Clean Chemistry Laboratory
GG.RL.23 Radiogenic Isotope Geochemistry: Support Room for Chemistry

SERVICES

electrical: 110 volt single phase: plug mold, bench height
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: sealed fluorescent units
climate control
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 20 ln ft
6' laminar flow clean bench (exhausted)

FINISHES, FEATURES

room height clear: 12'
floor: vinyl composition tile
walls: painted gypsum board
door: 36" wide with 24" fixed leaf
white board: 8 ln ft
ceiling: open to floor above
base: resilient vinyl
floor loading: 125 psf
security: lockable door
wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
computer chair (adjustable)	1		YES		

FACULTY CONTACT: Larry Edwards

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.RL.25 NET AREA: 280 ASF

ROOM NAME: STABLE ISOTOPES: MASS SPECTROMETER LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 3

LOCATION: With the following laboratories in Group B, Subgroup 3:

GG.RL.26 Stable Isotopes: Extraction Laboratory I
GG.RL.27 Stable Isotopes: Extraction Laboratory II
GG.RL.28 Stable Isotopes: Mineral Separation Laboratory

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: must be gounded
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
chilled water
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 12 ln ft
built-in wall cabinets: 12 ln ft
built-in full height storage cabinets: 12 ln ft

OTHER REQUIREMENTS

The 220V single phase for the mass spectrometer may require power conditioning. Temperature variation for mass spectrometer must be less than 1 degree/24 hr.

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab cart	2	30" X 42"	YES		
lab stool	3		YES		
computer table	1	30" X 60"	YES		
computer chair (adjustable)	1		YES		

FACULTY CONTACT: Emi Ito

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.RL.26 NET AREA: 560 ASF

ROOM NAME: STABLE ISOTOPES: EXTRACTION LABORATORY I

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 3

LOCATION: With the following laboratories in Group B, Subgroup 3:

GG.RL.25 Stable Isotopes: Mass Spectrometer Laboratory
GG.RL.27 Stable Isotopes: Extraction Laboratory II
GG.RL.28 Stable Isotopes: Mineral Separation Laboratory

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase:
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
chilled water
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 12 ln ft
built-in wall cabinets: 24 ln ft
built-in full height storage cabinets: 24 ln ft
4' fume hood with sink, acid drain, CW, HW, N, NG, comp air, vacuum, and cabinet beneath for acids and flammables

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab cart	2	30" X 42"	YES		
lab stool	3		YES		
computer table	1	30" X 60"	YES		
computer chair (adjustable)	1		YES		

FACULTY CONTACT: Emi Ito

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.RL.27 NET AREA: 560 ASF

ROOM NAME: STABLE ISOTOPES: EXTRACTION LABORATORY II

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 3

LOCATION: With the following laboratories in Group B, Subgroup 3:

GG.RL.25 Stable Isotopes: Mass Spectrometer Laboratory
GG.RL.26 Stable Isotopes: Extraction Laboratory I
GG.RL.28 Stable Isotopes: Mineral Separation Laboratory

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase:
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
chilled water
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 12 ln ft
built-in wall cabinets: 24 ln ft
built-in full height storage cabinets: 24 ln ft
4' fume hood with sink, acid drain, CW, HW, N, NG, comp air, vacuum, and cabinet beneath for acids and flammables

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab cart	2	30" X 42"	YES		
lab stool	3		YES		
computer table	1	30" X 60"	YES		
computer chair (adjustable)	1		YES		

FACULTY CONTACT: Emi Ito

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.RL.28 NET AREA: 280 ASF

ROOM NAME: STABLE ISOTOPES: MINERAL SEPARATION LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 3

LOCATION: With the following laboratories in Group B, Subgroup 3:

GG.RL.25 Stable Isotopes: Mass Spectrometer Laboratory
GG.RL.26 Stable Isotopes: Extraction Laboratory I
GG.RL.27 Stable Isotopes: Extraction Laboratory II

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase:
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
chilled water
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 12 ln ft
built-in wall cabinets: 12 ln ft
built-in full height storage cabinets: 12 ln ft
4' fume hood with sink, acid drain, CW, HW, N, NG, comp air, vacuum, and cabinet beneath for acids and flammables

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab cart	2	30" X 42"	YES		
lab stool	3		YES		
computer table	1	30" X 60"	YES		
computer chair (adjustable)	1		YES		

FACULTY CONTACT: Emi Ito

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.RL.29 NET AREA: 1120 ASF

ROOM NAME: CRYSTALLOGRAPHY LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 6

LOCATION: With other Geology and Geophysics laboratories in Group B.

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: one outlet each wall
208 volt three phase: one outlet each wall
heavy-duty electrical: 15 kW
special dedicated electrical circuits or special electrical grounding
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 24 ln ft
built-in full height storage cabinets: 8 ln ft
4' fume hood with sink, acid drain, CW, HW, N, NG, comp air, vacuum, and cabinet beneath for acids and flammables

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	4	36" X 72"	YES		
lab stool	4		YES		
computer table	2	30" X 60"	YES		
computer chair (adjustable)	2		YES		

FACULTY CONTACT: Zoltai

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.RL.30 NET AREA: 280 ASF

ROOM NAME: HYDROGEOCHEMISTRY LABORATORY I (WATER CHEMISTRY)

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: With the following laboratories in Group C, Subgroup 1:

GG.RL.31 Hydrogeochemistry Laboratory II (Isotopes)
GG.RL.32 Hydrogeochemistry Laboratory III (Dye Tracing)

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: one outlet each wall
208 volt three phase: two outlets, opposite walls
special electrical grounding
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
chilled water
floor drain
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 20 ln ft
built-in wall cabinets: 20 ln ft
built-in full height storage cabinets: 10 ln ft
2 4' fume hood with sink, acid drain, CW, HW, N, NG, comp air, vacuum, and cabinet beneath for acids and flammables
laminar flow clean bench (exhausted)

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
walk-in refrigerator	1	TBA	YES		

FACULTY CONTACT: Calvin Alexander

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.RL.31 NET AREA: 280 ASF

ROOM NAME: HYDROGEOCHEMISTRY LABORATORY II (ISOTOPES)

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: With the following laboratories in Group C, Subgroup 1:

GG.RL.30 Hydrogeochemistry Laboratory I (Water Chemistry)
GG.RL.32 Hydrogeochemistry Laboratory III (Dye Tracing)

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: one outlet each wall
208 volt three phase: two outlets, opposite walls
special electrical grounding
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
chilled water
floor drain
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 30 ln ft
built-in wall cabinets: 15 ln ft
built-in full height storage cabinets: 10 ln ft
4' fume hood with sink, acid drain, CW, HW, N, NG, comp air, vacuum, and cabinet beneath for acids and flammables
laminar flow clean bench (exhausted)

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS

FACULTY CONTACT: Calvin Alexander

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.RL.32 NET AREA: 280 ASF

ROOM NAME: HYDROGEOCHEMISTRY LABORATORY III (DYE TRACING)

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: With the following laboratories in Group C, Subgroup 1:

GG.RL.30 Hydrogeochemistry Laboratory I (Water Chemistry)
GG.RL.31 Hydrogeochemistry Laboratory II (Isotopes)

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: one outlet each wall
208 volt three phase: two outlets, opposite walls
special electrical grounding
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
chilled water
floor drain
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 20 ln ft
built-in wall cabinets: 20 ln ft
built-in full height storage cabinets: 10 ln ft
2 4' fume hood with sink, acid drain, CW, HW, N, NG, comp air, vacuum, and cabinet beneath for acids and flammables
laminar flow clean bench (exhausted)

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
walk-in refrigerator	1	6'X 8'		YES	

FACULTY CONTACT: Calvin Alexander

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.RL.33 NET AREA: 280 ASF

ROOM NAME: HYDROGEOLOGY LABORATORY (CLEAN)

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 4

LOCATION: With the following laboratories in Group C, Subgroup 3:

GG.RL.34 Hydrogeology Laboratory I
GG.RL.35 Hydrogeology Laboratory II

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: two outlets on opposite walls
special electrical grounding
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
floor drain
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 20 ln ft
built-in wall cabinets: 20 ln ft
built-in full height storage cabinets: 12 ln ft
4' fume hood with sink, acid drain, CW, HW, N, NG, comp air, vacuum, and cabinet beneath for acids and flammables
laminar flow clean bench (exhausted)
laminar flow clean bench (non-exhausted)

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	1	36" X 96"	YES		
lab cart	1	30" X 42"	YES		
lab stool	2		YES		
computer table	1	30" X 60"	YES		
computer chair (adjustable)	1		YES		
storage cabinets	1	36" X 72"	YES		

FACULTY CONTACT: H. O. Pfannkuch

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.RL.34 NET AREA: 560 ASF

ROOM NAME: HYDROGEOLOGY I

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 6

LOCATION: With the following laboratories in Group C, Subgroups 2 and 3:

GG.RL.33 Hydrogeology Laboratory (Clean)
GG.RL.35 Hydrogeology Laboratory II

SERVICES

electrical: 110 volt single phase: plug mold, bench height
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 24 ln ft
built-in wall cabinets: 24 ln ft

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	2	36" X 96"	YES		
lab stool	2		YES		
computer table	1	30" X 60"	YES		
computer chair (adjustable)	1		YES		

FACULTY CONTACT: Hydrogeology Chair

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.RL.35 NET AREA: 560 ASF

ROOM NAME: HYDROGEOLOGY II

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 6

LOCATION: With the following laboratories in Group C, Subgroups 2 and 3:

GG.RL.33 Hydrogeology Laboratory (Clean)
GG.RL.34 Hydrogeology Laboratory I

SERVICES

electrical: 110 volt single phase: plug mold, bench height
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
floor drain
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 24 ln ft
built-in wall cabinets: 24 ln ft
4' fume hood with sink, acid drain, CW, HW, N, NG, comp air, vacuum, and cabinet beneath for acids and flammables

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	2	36" X 96"	YES		
lab stool	2		YES		
computer table	1	30" X 60"	YES		
computer chair (adjustable)	1		YES		

FACULTY CONTACT: Hydrogeology Chair

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.RL.36 NET AREA: 840 ASF

ROOM NAME: STRUCTUROLOGY LABORATORY I

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 5

LOCATION: With the following laboratories in Group D:

GG.RL.37 Structurology Laboratory II
GG.RL.38 Geology and Geophysics Laboratory

SERVICES

electrical: 110 volt single phase: plug mold, bench height
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 24 ln ft
built-in wall cabinets: 24 ln ft

FINISHES, FEATURES

room height clear: 12'
floor: vinyl composition tile
walls: painted gypsum board
door: 36" wide with 24" fixed leaf
white board: 8 ln ft
ceiling: open to floor above
base: resilient vinyl
floor loading: 125 psf
security: lockable door
wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
computer table	2	30" X 60"			
computer chair (adjustable)	2				
map cabinets	4				
tack board with rollers	4	60" X 60"			

FACULTY CONTACT: C. Tyssier

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.RL.37 NET AREA: 840 ASF

ROOM NAME: STRUCTUROLOGY LABORATORY II

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 5

LOCATION: With the following laboratories in Group D:

GG.RL.36 Structurology Laboratory I
GG.RL.38 Geology and Geophysics Laboratory

SERVICES

electrical: 110 volt single phase: plug mold, bench height
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 24 ln ft
built-in wall cabinets: 24 ln ft

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
computer table	2	30" X 60"			
computer chair (adjustable)	2				
map cabinets	4				
tack board with rollers	4	60" X 60"			

FACULTY CONTACT: P. Hudleston

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.RL.38 NET AREA: 560 ASF

ROOM NAME: GEOLOGY AND GEOPHYSICS LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 6

LOCATION: With the following laboratories in Group D:

GG.RL.36 Structurology Laboratory I
GG.RL.37 Structurology Laboratory II

SERVICES

electrical: 110 volt single phase: plug mold, bench height
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
floor drain
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 24 ln ft
built-in wall cabinets: 24 ln ft
4' fume hood with sink, acid drain, CW, HW, N, NG, comp air, vacuum, and cabinet beneath for acids and flammables

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	2	36" X 96"	YES		
lab stool	2		YES		
computer table	1	30" X 60"	YES		
computer chair (adjustable)	1		YES		

FACULTY CONTACT: Sawkins

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.RL.39 NET AREA: 280 ASF

ROOM NAME: RADIOGENIC ISOTOPE GEOCHEMISTRY: ROCK PREPARATION ROOM

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 1

LOCATION: With other Geology and Geophysics laboratories in Group E.

SERVICES

electrical: 110 volt single phase: plug mold, bench height
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
at base cabinet
communications: voice and data
lighting: sealed fluorescent units
climate control
floor drain
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 20 ln ft
6' all polypropylene fume hood with sink, acid drain, CW, HW, N, NG, comp air, vacuum, and cabinet beneath for acids and flammables
6' all polypropylene laminar flow clean bench (exhausted)

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: epoxy	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

OTHER REQUIREMENTS

This laboratory will produce unusual vibraiton, noise, and dust and should be located away from sensitive laboratories.

MOVABLE EQUIPMENT: QTY SIZE PURCH EXIST COMMENTS

FACULTY CONTACT: Larry Edwards

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.RL.40 NET AREA: 560 ASF

ROOM NAME: BASIN ANALYSIS LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 8

LOCATION: Adjacent to: GG.RL.41 Sedimentary Petrology Laboratory

With the following laboratories in Group E, Subgroup 3:

GG.RL.42 Mechanics of Sediment Transport Laboratory I
GG.RL.43 Mechanics of Sediment Transport Laboratory II
GG.RL.44 Mechanics of Sediment Transport Laboratory III

SERVICES

electrical: 110 volt single phase: plug mold, bench height
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 6 ln ft
built-in wall cabinets: 15 ln ft

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
work table	4	36" X 96"	YES		
lab stool	2		YES		
computer table	3	30" X 60"	YES		
computer chair (adjustable)	6		YES		
storage cabinets	1	36" X 72"	YES		
microscope table	3	30" X 60"	YES		
drafting table	1	36" X 60"	YES		

FACULTY CONTACT: K. Kleinspehn

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.RL.41 NET AREA: 840 ASF

ROOM NAME: SEDIMENTARY PETROLOGY LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 4

LOCATION: Adjacent to: GG.RL.40 Basin Analysis Laboratory.

With the following laboratories in Group E, Subgroup 3:

GG.RL.42 Mechanics of Sediment Transport Laboratory I
GG.RL.43 Mechanics of Sediment Transport Laboratory II
GG.RL.44 Mechanics of Sediment Transport Laboratory III

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: one outlet
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
floor drain
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 40 ln ft
built-in wall cabinets: 30 ln ft
center island with base cabinets underneath: 5' X 10'
2 4' fume hood with sink, acid drain, CW, HW, N, NG, comp air, vacuum, and cabinet beneath for acids and flammables

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
work table	3	36" X 96"	YES		
lab stool	8		YES		
computer table	1	30" X 60"	YES		
computer chair (adjustable)	1		YES		
storage cabinets	1	36" X 72"	YES		
rock cabinet	2	16 drawer	YES		

FACULTY CONTACT: K. Kleinspehn

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.RL.42 NET AREA: 280 ASF

ROOM NAME: MECHANICS OF SEDIMENT TRANSPORT I

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 8

LOCATION: Adjacent to:

GG.RL.43 Mechanics of Sediment Transport Laboratory II
GG.RL.44 Mechanics of Sediment Transport Laboratory III

With the following laboratories in Group E, Subgroup 3:

GG.RL.40 Basin Analysis Laboratory
GG.RL.41 Sedimentary Petrology Laboratory

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: one outlet each wall
208 volt three phase: 2 outlets, opposite walls
special electrical grounding
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
floor drain
sanitary sewer: acid resistant
lab will produce unusual noise, vibration, electrical noise, and humidity

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 16 ln ft
built-in wall cabinets: 8 ln ft

FINISHES, FEATURES

room height clear: 16'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
work table	1	36" X 96"	YES		

FACULTY CONTACT: K. Kleinspehn

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.RL.43 NET AREA: 280 ASF

ROOM NAME: MECHANICS OF SEDIMENT TRANSPORT II

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 8

LOCATION: Adjacent to:

GG.RL.42 Mechanics of Sediment Transport Laboratory I
GG.RL.44 Mechanics of Sediment Transport Laboratory III

With the following laboratories in Group E, Subgroup 3:

GG.RL.40 Basin Analysis Laboratory
GG.RL.41 Sedimentary Petrology Laboratory

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: one outlet each wall
208 volt three phase: 2 outlets, opposite walls
special electrical grounding
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
floor drain
sanitary sewer: acid resistant
lab will produce unusual noise, vibration, electrical noise, and humidity

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 16 ln ft
built-in wall cabinets: 8 ln ft

FINISHES, FEATURES

room height clear: 16'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
work table	1	36" X 96"	YES		

FACULTY CONTACT: K. Kleinspehn

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.RL.44 NET AREA: 280 ASF

ROOM NAME: MECHANICS OF SEDIMENT TRANSPORT III

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 8

LOCATION: Adjacent to:

GG.RL.42 Mechanics of Sediment Transport Laboratory I
GG.RL.43 Mechanics of Sediment Transport Laboratory II

With the following laboratories in Group E, Subgroup 3:

GG.RL.40 Basin Analysis Laboratory
GG.RL.41 Sedimentary Petrology Laboratory

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: one outlet each wall
208 volt three phase: 2 outlets, opposite walls
special electrical grounding
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
floor drain
sanitary sewer: acid resistant
lab will produce unusual noise, vibration, electrical noise, and humidity

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 16 ln ft
built-in wall cabinets: 8 ln ft

FINISHES, FEATURES

room height clear: 16'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
work table	1	36" X 96"	YES		
computer table	1	30" X 60"	YES		
computer chair (adjustable)	1		YES		

FACULTY CONTACT: K. Kleinspehn

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.RL.45 NET AREA: 560 ASF

ROOM NAME: PALEONTOLOGY LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: Adjacent to: GG.IL.5 Earth History Laboratory

SERVICES

electrical: 110 volt single phase: plug mold, bench height
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 24 ln ft
built-in full height storage cabinets: 4 ln ft

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: acid resistant	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	2	36" X 72"	YES		
lab stool	2		YES		
computer table	1	30" X 60"	YES		
computer chair (adjustable)	1		YES		
storage cabinets	1	36" X 72"	YES		

FACULTY CONTACT: Robert Sloan

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.RL.46 NET AREA: 560 ASF

ROOM NAME: HYDROGEOLOGY LABORATORY (WET)

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 4

LOCATION: With other Geology and Geophysics laboratories in Group E.

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: two outlets on opposite walls
208 volt three phase: one outlet
special electrical grounding
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
floor drain
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 20 ln ft
built-in wall cabinets: 20 ln ft
built-in full height storage cabinets: 12 ln ft
4' fume hood with sink, acid drain, CW, HW, N, NG, comp air, vacuum, and cabinet beneath for acids and flammables
laminar flow clean bench (exhausted)
laminar flow clean bench (non-exhausted)

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	1	36" X 96"	YES		
lab cart	1	30" X 42"	YES		
lab stool	2		YES		
computer table	1	30" X 60"	YES		
computer chair (adjustable)	1		YES		
storage cabinets	1	36" X 72"	YES		

FACULTY CONTACT: H. O. Pfannkuch

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.RL.47 NET AREA: 280 ASF

ROOM NAME: GLACIOLOGY LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: Adjacent to: GG.RL.48 Glaciology Cold Room.

With the following laboratories in Group F:

LR.RL.1 Refrigerated Cold Storage Room
LR.RL.2 Core Processing Laboratory
GS.RL.1 Core Study Laboratory
GS.RL.2 Core Storage Room
GS.RL.3 Cuttings Storage Room

SERVICES

electrical: 110 volt single phase: plug mold, bench height
208 volt three phase: 1 outlet in middle of long wall
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
floor drain
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 12 ln ft
built-in wall cabinets: 24 ln ft

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
computer table	1			YES	
computer chair (adjustable)	1			YES	

FACULTY CONTACT: Hooke

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.RL.48 NET AREA: 280 ASF

ROOM NAME: GLACIOLOGY COLD ROOM

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: Adjacent to: GG.RL.47 Glaciology Laboratory

With the following laboratories in Group F:

LR.RL.1 Refrigerated Cold Storage Room
LR.RL.2 Core Processing Laboratory
GS.RL.1 Core Study Laboratory
GS.RL.2 Core Storage Room
GS.RL.3 Cuttings Storage Room

SERVICES

electrical: 110 volt single phase: plug mold, bench height
CW and HW at trough sink
N, NG, comp air, vacuum, deionized water at 8' base cabinet
communications: voice and data
lighting: fluorescent
climate control: maintain temperature at -25 C.
floor drain
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 8 ln ft

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: epoxy	base: resilient vinyl
walls: cement block w epoxy paint	floor loading: > 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
room must be windowless	

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	2	42" X 96"			
lab cart	4	30" X 42"			
lab stool	2				

FACULTY CONTACT: Hooke

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.CI. 1 NET AREA: 560 ASF

ROOM NAME: MICROPROBE LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 4

LOCATION: Near to: GG.CI.2 Microprobe Preparation Laboratory

With other laboratories in Group M requiring vibration isolation.

SERVICES

electrical: 110 volt single phase: plug mold, bench height
120 volt single phase, 30 amp: filtered and surge proof
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
cleanliness:
vibration isolation: low frequencies
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 6 ln ft
built-in full height storage cabinets: 4 ln ft

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
computer table	4	30" X 60"	YES		
computer chair (adjustable)	4		YES		
microprobe	1		YES		

FACULTY CONTACT: J. Stout

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.CI. 2 NET AREA: 560 ASF

ROOM NAME: MICROPROBE PREPARATION LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 4

LOCATION: Near to: GG.CI.1 Microprobe Laboratory

SERVICES

electrical: 110 volt single phase: plug mold, bench height
CW and HW at base cabinet with sink and at center island with sink
N, NG, comp air, vacuum, deionized water at base cabinet
and at center island
emergency shower/eye wash near fume hood
communications: voice and data
lighting: fluorescent
climate control
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 30 ln ft
built-in wall cabinets: 30 ln ft
center island: 12 ln ft
6' fume hood with sink, acid drain, CW, HW, N, NG, comp air, vacuum,
and cabinet beneath for acids and flammables
6' laminar flow clean bench (non-exhausted)

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
refrigerator	1		YES		

FACULTY CONTACT: J. Stout

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GG.CI. 3 NET AREA: 560 ASF

ROOM NAME: X-RAY DIFFRACTION AND FLUORESCENCE LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: With the following laboratories in Group M, Subgroup 2:

GS.CI.1 X-Ray Laboratory
A1.CI.1 X-Ray Laboratory

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: 1 outlet on each wall
heavy-duty electrical: 10 kW
electrical instrumentation ground
hot and cold water at base cabinet with sink
natural gas, nitrogen, vacuum, compressed air, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
chilled water
vibration isolation:
floor drain
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 18 ln ft
built-in wall cabinets: 10 ln ft

OTHER REQUIREMENTS

This lab may produce unusual electrical noise.

FINISHES AND FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone
room must be windowless	

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab stool	3		YES		
computer table	2	30" X 60"	YES		
computer chair (adjustable)	2		YES		
file cabinets	2		YES		

FACULTY CONTACT: Seyfried

Limnological Research Center

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: LR.AO.1 NET AREA: 150 ASF

ROOM NAME: SECRETARY OFFICE

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 1

LOCATION: In the office portion(s) of the office/laboratory module(s) for the Limnological Research Center with the following other rooms, which together form the LRC administrative office:

LR.AO.2 Reception And Public Area
LR.AO.3 Conference Room
LR.AO.4 Workroom

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

open shelving: 120 ln ft

FINISHES, FEATURES

room height clear: 8'
floor: carpet
walls: painted gypsum board
door: single
window covering: blinds
ceiling: dropped, finished
base: resilient vinyl
white board: 4 ln ft
security: lockable door
telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
single pedestal desk with typing return	1	30"x60"	YES		
secretarial chair	1		YES		
computer table	1	30"x60"	YES		
guest chair	2		YES		
computer chair (adjustable)	1		YES		
file cabinet (vertical)	4	4 drawer	YES		
waste basket	1		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: LR.AO.2 NET AREA: 300 ASF

ROOM NAME: RECEPTION AND PUBLIC AREA

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 1

LOCATION: In the office portion(s) of the office/laboratory module(s) for the Limnological Research Center with the following other rooms, which together form the LRC administrative office:

LR.AO.1 Secretary Office
LR.AO.3 Conference Room
LR.AO.4 Workroom

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

open shelving: 240 ln ft
24 mail boxes: 4" X 12"

FINISHES, FEATURES

room height clear: 8'
floor: carpet
walls: painted gypsum board
door: single
window covering: blinds
ceiling: dropped, finished
base: resilient vinyl
white board: 4 ln ft
security: lockable door
telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
single pedestal desk with typing return	1	30"x60"	YES		
secretarial chair	1		YES		
computer table	1	30"x60"	YES		
waste basket	1		YES		
guest chair	4		YES		
occasional table	1	30"x30"	YES		
small magazine rack	1		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: LR.AO.3 NET AREA: 300 ASF

ROOM NAME: CONFERENCE ROOM

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 10

LOCATION: In the office portion(s) of the office/laboratory module(s) for the Limnological Research Center with the following other rooms, which together form the LRC administrative office:

LR.AO.1 Secretary Office
LR.AO.2 Reception And Public Area
LR.AO.4 Workroom

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

built-in base cabinets: 12 ln ft
built-in wall cabinets: 12 ln fit

FINISHES, FEATURES

room height clear: 8'
floor: carpet
walls: painted gypsum board
door: single
window covering: blinds
ceiling: dropped, finished
base: resilient vinyl
white board: 4 ln ft
security: lockable door
telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
conference table	1	6'x12'	YES		
side chair	10		YES		
waste basket	2		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: LR.AO.4 NET AREA: 600 ASF

ROOM NAME: WORKROOM

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 1

LOCATION: In the office portion(s) of the office/laboratory module(s) for the Limnological Research Center with the following other rooms, which together form the LRC administrative office:

LR.AO.1 Secretary Office
LR.AO.2 Reception And Public Area
LR.AO.3 Conference Room

SERVICES

electrical: 110 volt single phase
208 single phase: 1 outlet for copy machine
communications: voice and data
lighting: fluorescent
climate control
ventilation for copy machine

CASEWORK, FIXTURES

built-in base cabinets: 12 ln ft
built-in wall cabinets: 12 ln ft
open shelving: 120 ln ft

FINISHES, FEATURES

room height clear: 8'
floor: carpet
walls: painted gypsum board
door: single
window covering: blinds
ceiling: dropped, finished
base: resilient vinyl
white board: 4 ln ft
security: lockable door
telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
file cabinet (vertical)	10	4 drawer	YES		
computer table	1	30"x60"	YES		
computer chair (adjustable)	1		YES		
storage cabinets	6	36"x72"	YES		
work table	2	30"x60"	YES		
waste basket	1		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: LR.FO.1-4 NET AREA: 180 ASF

ROOM NAME: FACULTY OFFICE

NUMBER OF ROOMS: 4 AVERAGE NUMBER OF OCCUPANTS: 1

LOCATION: In the office portion(s) of the office/laboratory module(s) for the Limnological Research Center with the following other rooms:

LR.RO.1-3 Research Assistant Office
LR.OO.1-3 Other Office

One of these faculty offices will be for the Director of the LRC and should be located with the administrative offices.

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

open shelving: 200 ln ft

FINISHES, FEATURES

room height clear: 8'
floor: carpet
walls: painted gypsum board
door: single
window covering: blinds
ceiling: dropped, finished
base: resilient vinyl
white board: 4 ln ft
security: lockable door
telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
double pedestal desk	1	30"x60"	YES		
desk chair	1		YES		
conference table	1	30"x60"	YES		
side chair	2		YES		
computer table	1	30"x60"	YES		
computer chair (adjustable)	1		YES		
file cabinet (vertical)	4	4 drawer	YES		
waste basket	1		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: LR.RO.1-3 NET AREA: 150 ASF

ROOM NAME: RESEARCH ASSISTANT OFFICE

NUMBER OF ROOMS: 3 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: In the office portion(s) of the office/laboratory module(s) for the Limnological Research Center with the following other rooms:

LR.FO.1-4 Faculty Office
LR.OO.1-3 Other Office

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

open shelving: 60 ln ft

FINISHES, FEATURES

room height clear: 8'
floor: carpet
walls: painted gypsum board
door: single
window covering: blinds
ceiling: dropped, finished
base: resilient vinyl
white board: 4 ln ft
security: lockable door
telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
double pedestal desk	2	30"x60"	YES		
desk chair	2		YES		
side chair	2		YES		
computer table	2	30"x60"	YES		
computer chair (adjustable)	2		YES		
file cabinet (vertical)	2	2 drawer	YES		
waste basket	2		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: LR.OO.1-3 NET AREA: 150 ASF

ROOM NAME: OTHER OFFICE

NUMBER OF ROOMS: 3 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: In the office portion(s) of the office/laboratory module(s) for the Limnological Research Center with the following other rooms:

LR.FO.1-4 Faculty Office
LR.RO.1-3 Research Assistant Office

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

open shelving: 60 ln ft

FINISHES, FEATURES

room height clear: 8'
floor: carpet
walls: painted gypsum board
door: single
window covering: blinds
ceiling: dropped, finished
base: resilient vinyl
white board: 4 ln ft
security: lockable door
telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
double pedestal desk	2	30"x60"	YES		
desk chair	2		YES		
side chair	2		YES		
computer table	2	30"x60"	YES		
computer chair (adjustable)	2		YES		
file cabinet (vertical)	2	2 drawer	YES		
waste basket	2		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: LR.RL.1 NET AREA: 560 ASF

ROOM NAME: REFRIGERATED COLD STORAGE ROOM

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: With the following laboratories in Group F:

GG.RL.47 Glaciology Laboratory
GG.RL.48 Glaciology Cold Room.
LR.RL.2 Core Processing Laboratory
GS.RL.1 Core Study Laboratory
GS.RL.2 Core Storage Room
GS.RL.3 Cuttings Storage Room

SERVICES

electrical: 110 volt single phase: plug mold, bench height
CW and HW at trough sink
N, NG, comp air, vacuum, deionized water at 8' base cabinet
communications: voice and data
lighting: fluorescent
climate control
floor drain
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 8 ln ft
built-in roller racks for core storage
8' trough sink

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: epoxy	base: resilient vinyl
walls: cement block w epoxy paint	floor loading: > 125 psf (consult user)
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	room must be windowless

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	2	42" X 96"			
lab cart	4	30" X 42"			
lab stool	2				

FACULTY CONTACT: K. Kelts, L. Shane

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: LR.RL.2 NET AREA: 840 ASF

ROOM NAME: CORE PROCESSING LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 10

LOCATION: With the following laboratories in Group F:

GG.RL.47 Glaciology Laboratory
GG.RL.48 Glaciology Cold Room.
LR.RL.1 Refrigerated Cold Storage Room
GS.RL.1 Core Study Laboratory
GS.RL.2 Core Storage Room
GS.RL.3 Cuttings Storage Room

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt (European):
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
hot and cold water at trough sink
hot and cold water at epoxy coated table tray
emergency shower/eye wash near fume hood
communications: voice and data
lighting: fluorescent
climate control
2 floor drains
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 18 ln ft
built-in wall cabinets: 36 ln ft
6' fume hood with sink, acid drain, CW, HW, N, NG, comp air, vacuum, and cabinet beneath for acids and flammables
center island (4' W) with cabinets and drawers below: 24 ln ft
8' trough sink
8' table tray

FINISHES, FEATURES

room height clear: 12'
ceiling: open to floor above
floor: vinyl composition tile
base: resilient vinyl
walls: painted gypsum board
floor loading: 125 psf
door: 36" wide with 24" fixed leaf
security: lockable door
white board: 8 ln ft
wall clock and telephone

(continued on next page)

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	2	42" X 140"	YES		
lab bench	2	42" X 108"	YES		
lab cart	4	30" X 42"	YES		
lab stool	10		YES		
computer table	1	36" X 60"	YES		
computer chair (adjustable)	1		YES		
white board	1	36" X 140"	YES		
photographic table	1		YES		

FACULTY CONTACT: K. Kelts, L. Shane

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: LR.RL.3 NET AREA: 140 ASF

ROOM NAME: SECURE CORING EQUIPMENT STORAGE ROOM

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 1

LOCATION: Near to CI.SS.7 Field Staging Laboratory (Garage) and loading dock.

SERVICES

electrical: 110 volt single phase: plug mold, bench height
lighting: fluorescent
climate control

CASEWORK, HOODS, FIXTURES

built-in full height storage cabinets: 12 ln ft

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
storage cabinets					

FACULTY CONTACT: K. Kelts, L. Shane

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: LR.RL.4 NET AREA: 280 ASF

ROOM NAME: SEDIMENTARY LIMNOLOGY LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: With the following laboratories in Group G:

LR.RL.6 Pollen Preparation Laboratory
LR.RL.7 Microscopy Laboratory
LR.RL.8 Radioactive Isotope Laboratory

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: 4 outlets on 1 wall, countertop height
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
emergency shower/eye wash near fume hood
communications: voice and data
lighting: fluorescent
climate control
floor drain
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 24 ln ft
built-in wall cabinets: 24 ln ft
4' fume hood with sink, acid drain, CW, HW, N, NG, comp air, vacuum, and cabinet beneath for acids and flammables

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab cart	1	30" X 42"	YES		
lab stool	2		YES		
computer table	1	36" X 60"	YES		
computer chair (adjustable)	1		YES		
white board	1		YES		
refrigerator	1		YES		

FACULTY CONTACT: K. Kelts, L. Shane

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: LR.RL.5 NET AREA: 140 ASF

ROOM NAME: SECURE MODERN LIMNOLOGY EQUIPMENT STORAGE ROOM

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 1

LOCATION: Near to CI.SS.7 Field Staging Laboratory (Garage) and loading dock.

SERVICES

electrical: 110 volt single phase: plug mold, bench height
lighting: fluorescent
climate control

CASEWORK, HOODS, FIXTURES

built-in full height storage cabinets: 12 ln ft

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
storage cabinets					

FACULTY CONTACT: K. Kelts, L. Shane

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: LR.RL.6 NET AREA: 280 ASF

ROOM NAME: POLLEN PREPARATION LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 3

LOCATION: With the following laboratories in Group G:

LR.RL.4 Sedimentary Limnology Laboratory
LR.RL.7 Microscopy Laboratory
LR.RL.8 Radioactive Isotope Laboratory

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase:
CW and HW at base cabinet with 2 sinks
N, NG, comp air, vacuum, deionized water at base cabinet
at base cabinet
emergency shower/eye wash near fume hood
communications: voice and data
lighting: fluorescent
climate control
cleanliness: air must be filtered to remove air-borne
pollen; positive pressure required
floor drain
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 12 ln ft
built-in wall cabinets: 12 ln ft
6' fume hood with sink, acid drain, CW, HW, N, NG, comp air, vacuum,
and cabinet beneath for acids and flammables;
hood materials must be acid resistant;
front should be plastic; hood must have 2 shelves

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: acid resistant	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab cart	1	30" X 42"	YES		
lab stool	2		YES		

FACULTY CONTACT: K. Kelts, L. Shane

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: LR.RL.7 NET AREA: 280 ASF

ROOM NAME: MICROSCOPY LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 280

LOCATION: With the following laboratories in Group G:

LR.RL.4 Sedimentary Limnology Laboratory
LR.RL.6 Pollen Preparation Laboratory
LR.RL.8 Radioactive Isotope Laboratory

SERVICES

electrical: 110 volt single phase: plug mold, bench height
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

open shelving: 60 ln ft
built-in base cabinets: 6 ln ft

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
storage cabinet	1		YES		

FACULTY CONTACT: K. Kelts, L. Shane

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: LR.RL.8 NET AREA: 280 ASF

ROOM NAME: RADIOACTIVE ISOTOPE LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: With the following laboratories in Group G:

LR.RL.4 Sedimentary Limnology Laboratory
LR.RL.6 Pollen Preparation Laboratory
LR.RL.7 Microscopy Laboratory

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: 1 outlet for muffle furnace
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
emergency shower/eye wash near fume hood
communications: voice and data
lighting: fluorescent
climate control
floor drain
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 12 ln ft
built-in wall cabinets: 12 ln ft
4' fume hood with sink, acid drain, CW, HW, N, NG, comp air, vacuum, and cabinet beneath for acids and flammables

OTHER REQUIREMENTS

Must meet state and federal requirements for isotope work.

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab cart	1	30" X 42"			
lab stool	2				
refrigerator	1				

FACULTY CONTACT: K. Kelts, L. Shane

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: LR.RL.9 NET AREA: 560 ASF

ROOM NAME: ANALYTICAL CHEMICAL LIMNOLOGY LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 3

LOCATION: Adjacent to:

LR.RL.10 Neolimnology And Biomanipulation Laboratory
LR.RL.11 Neolimnology And Biomanipulation: Culture Laboratory

With other laboratories in Group G.

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: 1 outlet for muffle furnace
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
emergency shower/eye wash near fume hood
communications: voice and data
lighting: fluorescent
climate control
floor drain
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 6 ln ft
built-in full height storage cabinets: 6 ln ft
center island, with drawers and cabinets underneath: 18 ln ft
4' fume hood with sink, acid drain, CW, HW, N, NG, comp air, vacuum, and cabinet beneath for acids and flammables

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: acid resistant	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	2	42" X 96"	YES		
lab cart	2	30" X 42"	YES		
lab stool	5		YES		
computer table	1	30" X 60"	YES		
computer chair (adjustable)	1		YES		
explosion proof refrigerator	1		YES		
flamables storage cabinet	1		YES		

FACULTY CONTACT: K. Kelts, L. Shane

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: LR.RL.10 NET AREA: 280 ASF

ROOM NAME: NEOLIMNOLOGY AND BIOMANIPULATION LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: Adjacent to:

LR.RL.9 Analytical Chemical Limnology Laboratory
LR.RL.11 Neolimnology And Biomanipulation: Culture Laboratory

With other laboratories in Group G.

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase:
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
emergency shower/eye wash near fume hood
communications: voice and data
lighting: fluorescent
climate control
floor drain
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 24 ln ft
built-in wall cabinets: 24 ln ft
4' fume hood with sink, acid drain, CW, HW, N, NG, comp air, vacuum, and cabinet beneath for acids and flammables

OTHER REQUIREMENTS

Common door with Neolimnology And Biomanipulation: Culture Laboratory.

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab cart	2	30" X 42"	YES		
lab stool	3		YES		
computer table	1	30" X 60"	YES		
computer chair (adjustable)	1		YES		

FACULTY CONTACT: K. Kelts, L. Shane

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: LR.RL.11 NET AREA: 280 ASF

ROOM NAME: NEOLIMNOLOGY AND BIOMANIPULATION: CULTURE LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: Adjacent to:

LR.RL.9 Analytical Chemical Limnology Laboratory
LR.RL.10 Neolimnology And Biomanipulation Laboratory

With other laboratories in Group G.

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase:
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
emergency shower/eye wash near fume hood
communications: voice and data
lighting: fluorescent
climate control
water supply for still and autoclave
floor drain
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 12 ln ft
built-in wall cabinets: 12 ln ft
4' fume hood with sink, acid drain, CW, HW, N, NG, comp air, vacuum, and cabinet beneath for acids and flammables

OTHER REQUIREMENTS

Common door with Neolimnology and Biomanipulation Laboratory.

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab cart	1	30" X 42"	YES		
lab stool	2		YES		
refrigerator	1		YES		

FACULTY CONTACT: K. Kelts, L. Shane

Minnesota Geological Survey

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GS.AO.1 NET AREA: 200 ASF

ROOM NAME: DIRECTOR OFFICE

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 1

LOCATION: In the Minnesota Geological Survey administrative office suite with the following rooms.

GS.AO.2 Associate Director Office
GS.AO.3 Administrator Office
GS.AO.4 Accountant Office
GS.AO.5 Clerical/Reception Area
GS.AO.6 Conference Room/Commons Room
GS.AO.7 Workroom, Copy Room

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

open shelving: 200 ln ft

FINISHES, FEATURES

room height clear: 8'
floor: carpet
walls: painted gypsum board
door: single
window covering: blinds
ceiling: dropped, finished
base: resilient vinyl
white board: 4 ln ft
security: lockable door
telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
double pedestal desk	1	30"x60"	YES		
desk chair	1		YES		
conference table	1	48"x96"	YES		
side chair	8		YES		
computer table	1	30"x60"	YES		
computer chair (adjustable)	1		YES		
waste basket	1		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GS.AO.2 NET AREA: 200 ASF

ROOM NAME: ASSOCIATE DIRECTOR OFFICE

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 1

LOCATION: In the Minnesota Geological Survey administrative office suite with the following rooms.

GS.AO.1 Director Office
GS.AO.3 Administrator Office
GS.AO.4 Accountant Office
GS.AO.5 Clerical/Reception Area
GS.AO.6 Conference Room/Commons Room
GS.AO.7 Workroom, Copy Room

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

open shelving: 200 ln ft

FINISHES, FEATURES

room height clear: 8'
floor: carpet
walls: painted gypsum board
door: single
window covering: blinds
ceiling: dropped, finished
base: resilient vinyl
white board: 4 ln ft
security: lockable door
telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
double pedestal desk	1	30"x60"	YES		
desk chair	1		YES		
conference table	1	48"x96"	YES		
side chair	8		YES		
computer table	1	30"x60"	YES		
computer chair (adjustable)	1		YES		
waste basket	1		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GS.AO.3 NET AREA: 150 ASF

ROOM NAME: ADMINISTRATOR OFFICE

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 1

LOCATION: In the Minnesota Geological Survey administrative office suite with the following rooms.

GS.AO.1 Director Office
GS.AO.2 Associate Director Office
GS.AO.4 Accountant Office
GS.AO.5 Clerical/Reception Area
GS.AO.6 Conference Room/Commons Room
GS.AO.7 Workroom, Copy Room

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

open shelving: 120 ln ft

FINISHES, FEATURES

room height clear: 8'
floor: carpet
walls: painted gypsum board
door: single
window covering: blinds
ceiling: dropped, finished
base: resilient vinyl
white board: 4 ln ft
security: lockable door
telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
double pedestal desk	1	30"x60"	YES		
desk chair	1		YES		
conference table	1	36"x60"	YES		
side chair	4		YES		
computer table	1	30"x60"	YES		
computer chair (adjustable)	1		YES		
file cabinet (vertical)	4	4 drawer	YES		
waste basket	1		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GS.AO.4 NET AREA: 150 ASF

ROOM NAME: ACCOUNTANT OFFICE

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 1

LOCATION: In the Minnesota Geological Survey administrative office suite with the following rooms.

GS.AO.1 Director Office
GS.AO.2 Associate Director Office
GS.AO.3 Administrator Office
GS.AO.5 Clerical/Reception Area
GS.AO.6 Conference Room/Commons Room
GS.AO.7 Workroom, Copy Room

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

open shelving: 120 ln ft

FINISHES, FEATURES

room height clear: 8'	ceiling: dropped, finished
floor: carpet	base: resilient vinyl
walls: painted gypsum board	white board: 4 ln ft
door: single	security: lockable door
window covering: blinds	telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
double pedestal desk	1	30"x60"	YES		
desk chair	1		YES		
conference table	1	36"x60"	YES		
side chair	4		YES		
computer table	1	30"x60"	YES		
computer chair (adjustable)	1		YES		
file cabinet (vertical)	4	4 drawer	YES		
waste basket	1		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GS.AO.5 NET AREA: 300 ASF

ROOM NAME: CLERICAL/RECEPTION AREA

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: In the Minnesota Geological Survey administrative office suite with the following rooms.

GS.AO.1 Director Office
GS.AO.2 Associate Director Office
GS.AO.3 Administrator Office
GS.AO.4 Accountant Office
GS.AO.6 Conference Room/Commons Room
GS.AO.7 Workroom, Copy Room

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

open shelving: 160 ln ft

FINISHES, FEATURES

room height clear: 8'
floor: carpet
walls: painted gypsum board
door: single
window covering: blinds
ceiling: dropped, finished
base: resilient vinyl
white board: 4 ln ft
security: lockable door
telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
single pedestal desk with typing return	3	30"x60"	YES		
secretarial chair	3		YES		
computer table	3	30"x60"	YES		
waste basket	3		YES		
guest chair	4		YES		
occasional table	1	30"x30"	YES		
small magazine rack	1		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GS.AO.6 NET AREA: 600 ASF

ROOM NAME: CONFERENCE ROOM/COMMONS ROOM

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 10

LOCATION: In the Minnesota Geological Survey administrative office suite with the following rooms.

GS.AO.1 Director Office
GS.AO.2 Associate Director Office
GS.AO.3 Administrator Office
GS.AO.4 Accountant Office
GS.AO.5 Clerical/Reception Area
GS.AO.7 Workroom, Copy Room

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

built-in base cabinets: 12 ln ft
built-in wall cabinets: 12 ln fit

FINISHES, FEATURES

room height clear: 8'
floor: carpet
walls: painted gypsum board
door: single
window covering: blinds
ceiling: dropped, finished
base: resilient vinyl
white board: 4 ln ft
security: lockable door
telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
conference table	1	6'x12'	YES		
side chair	10		YES		
waste basket	2		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GS.AO.7 NET AREA: 300 ASF

ROOM NAME: WORKROOM, COPY ROOM

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 1

LOCATION: In the Minnesota Geological Survey administrative office suite with the following rooms.

GS.AO.1 Director Office
GS.AO.2 Associate Director Office
GS.AO.3 Administrator Office
GS.AO.4 Accountant Office
GS.AO.5 Clerical/Reception Area
GS.AO.6 Conference Room/Commons Room

SERVICES

electrical: 110 volt single phase
208 single phase: 1 outlet for copy machine
communications: voice and data
lighting: fluorescent
climate control
ventilation for copy machine

CASEWORK, FIXTURES

open shelving: 1n ft

FINISHES, FEATURES

room height clear: 8'	ceiling: dropped, finished
floor: carpet	base: resilient vinyl
walls: painted gypsum board	white board: 4 ln ft
door: single	security: lockable door
window covering: blinds	telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
file cabinet (vertical)	10	4 drawer	YES		
storage cabinets	6	36"x72"	YES		
work table	2	30"x60"	YES		
waste basket	1		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GS.RO.1-3 NET AREA: 150 ASF

ROOM NAME: RESEARCH ASSISTANT OFFICE

NUMBER OF ROOMS: 3 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: In the office portion(s) of the Minnesota Geological Survey office/laboratory module(s).

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

open shelving: 60 ln ft

FINISHES, FEATURES

room height clear: 8'	ceiling: dropped, finished
floor: carpet	base: resilient vinyl
walls: painted gypsum board	white board: 4 ln ft
door: single	security: lockable door
window covering: blinds	telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
double pedestal desk	2	30"x60"	YES		
desk chair	2		YES		
side chair	2		YES		
computer table	2	30"x60"	YES		
computer chair (adjustable)	2		YES		
file cabinet (vertical)	2	2 drawer	YES		
waste basket	2		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GS.00.1-25 NET AREA: 180

ROOM NAME: SCIENTIST/TECHNICIAN OFFICE

NUMBER OF ROOMS: 25 AVERAGE NUMBER OF OCCUPANTS: 1

LOCATION: 20 of these offices should be located together near the Minnesota Geological Survey administrative office suite. These offices should be designed in close consultation with the MGS. Consult users regarding the option of using an open, partitioned office space for these offices. The activities in these offices (e.g. drafting, map preparation, etc.) are very space-intensive.

5 of these offices may be located in the office portion(s) of the Minnesota Geological Survey office/laboratory module(s) with the following offices: GS.RO.1-3 Research Assistant Offices.

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

open shelving: 60 ln ft

FINISHES, FEATURES

room height clear: 8'
floor: carpet
walls: painted gypsum board
door: single
window covering: blinds
ceiling: dropped, finished
base: resilient vinyl
white board: 4 ln ft
security: lockable door
telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
double pedestal desk	25	30"x60"	YES		
desk chair	25		YES		
side chair	25		YES		
computer table	25	30"x60"	YES		
computer chair (adjustable)	25		YES		
drafting table	25	42" X 72"	YES		
file cabinet (vertical)	25	2 drawer	YES		
waste basket	25		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GS.RL.1 NET AREA: 280 ASF

ROOM NAME: CORE STUDY LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: With the following laboratories in Group F:

GG.RL.47 Glaciology Laboratory
GG.RL.48 Glaciology Cold Room.
LR.RL.1 Refrigerated Cold Storage Room
LR.RL.2 Core Processing Laboratory
GS.RL.2 Core Storage Room
GS.RL.3 Cuttings Storage Room

SERVICES

electrical: 110 volt single phase: plug mold, bench height
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 12 ln ft
built-in wall cabinets: 12 ln ft

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	1	36" X 96"	YES		
lab cart	1	30" X 42"	YES		
lab stool	1		YES		
computer table	1	30" X 60"	YES		
computer chair (adjustable)	1		YES		
storage cabinets	1		YES		
heavy-duty table	2	42" X 96"	YES		

FACULTY CONTACT: G. B. Morey

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GS.RL.2 NET AREA: 1120 ASF

ROOM NAME: CORE STORAGE ROOM

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: With the following laboratories in Group F:

GG.RL.47 Glaciology Laboratory
GG.RL.48 Glaciology Cold Room.
LR.RL.1 Refrigerated Cold Storage Room
LR.RL.2 Core Processing Laboratory
GS.RL.1 Core Study Laboratory
GS.RL.3 Cuttings Storage Room

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: 1 outlet
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 12 ln ft
built-in wall cabinets: 12 ln ft
built-in full height storage cabinets: 6 ln ft

OTHER REQUIREMENTS

Room requires very heavy floor loading; should be located with other core storage facilities.

FINISHES, FEATURES

room height clear: 12' ceiling: open to floor above
floor: vinyl composition tile base: resilient vinyl
walls: painted gypsum board floor loading: > 125 psf (consult user)
door: 36" wide with 24" fixed leaf security: lockable door

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	1	36" X 96"	YES		
lab cart	1	30" X 42"	YES		
lab stool	1		YES		
computer table	1	30" X 60"	YES		
computer chair (adjustable)	1		YES		

FACULTY CONTACT: G. B. Morey

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GS.RL.3 NET AREA: 1680 ASF

ROOM NAME: CUTTINGS STORAGE ROOM

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: With the following laboratories in Group F:

GG.RL.47 Glaciology Laboratory
GG.RL.48 Glaciology Cold Room.
LR.RL.1 Refrigerated Cold Storage Room
LR.RL.2 Core Processing Laboratory
GS.RL.1 Core Study Laboratory
GS.RL.2 Core Storage Room

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: 1 outlet
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 12 ln ft
built-in wall cabinets: 12 ln ft
built-in full height storage cabinets: 6 ln ft

OTHER REQUIREMENTS

Room requires very heavy floor loading; should be located with other core storage facilities.

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: > 125 psf (consult user)
door: 36" wide with 24" fixed leaf	security: lockable door

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	1	36" X 96"	YES		
lab cart	1	30" X 42"	YES		
lab stool	1		YES		
computer table	1	30" X 60"	YES		
computer chair (adjustable)	1		YES		

FACULTY CONTACT: G. B. Morey

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GS.RL.4 NET AREA: 280 ASF

ROOM NAME: GEOPHYSICS LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 4

LOCATION: With the following laboratories in Group H.

GS.RL.5 Petrographic Laboratory
GS.RL.6 U/Th Disequilibrium Laboratory
GS.RL.7 Microscopy Laboratory
GS.RL.8 Radioactive Source Storage Room

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: 4 outlets
208 volt three phase:
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
electromagnetic shielding
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 12 ln ft
built-in wall cabinets: 12 ln ft

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	1	36" X 96"	YES		
lab cart	1	30" X 42"	YES		
lab stool	1		YES		
computer table	1	30" X 60"	YES		
computer chair (adjustable)	1		YES		
storage cabinets	1		YES		

FACULTY CONTACT: G. B. Morey

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GS.RL.5 NET AREA: 280 ASF

ROOM NAME: PETROGRAPHIC LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: With the following laboratories in Group H.

GS.RL.4 Geophysics Laboratory
GS.RL.6 U/Th Disequilibrium Laboratory
GS.RL.7 Microscopy Laboratory
GS.RL.8 Radioactive Source Storage Room

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase:
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
cleanliness:
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 12 ln ft
built-in wall cabinets: 12 ln ft

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	1	36" X 96"	YES		
lab cart	1	30" X 42"	YES		
lab stool	1		YES		
computer table	1	30" X 60"	YES		
computer chair (adjustable)	1		YES		
storage cabinets	1		YES		

FACULTY CONTACT: G. B. Morey

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GS.RL.6 NET AREA: 280 ASF

ROOM NAME: U/TH DISEQUILIBRIUM LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: With the following laboratories in Group H.

GS.RL.4 Geophysics Laboratory
GS.RL.5 Petrographic Laboratory
GS.RL.7 Microscopy Laboratory
GS.RL.8 Radioactive Source Storage Room

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: 4 outlets
208 volt three phase: 4 outlets
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
emergency showers/eye washes near fume hoods
communications: voice and data
lighting: fluorescent
climate control
chilled water
floor drain
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 12 ln ft
built-in wall cabinets: 12 ln ft
built-in full height storage cabinets: 6 ln ft
4' fume hood with sink, acid drain, CW, HW, N, NG, comp air, vacuum, 8 110V outlets, and cabinet beneath for acids and flammables
2 6' fume hoods with sink, acid drain, CW, HW, N, NG, comp air, vacuum, 8 110V outlets, and cabinet beneath for acids and flammables
6' laminar flow clean bench (exhausted)

OTHER REQUIREMENTS

Room must have within it a smaller room (48 ASF) for electronics.

FINISHES, FEATURES

room height clear: 12'
floor: acid resistant
walls: glazed concrete block
door: 36" wide with 24" fixed leaf
white board: 8 ln ft
ceiling: open to floor above
base: resilient vinyl
floor loading: 125 psf
security: lockable door
wall clock and telephone

(continued on next page)

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	1	36" X 96"	YES		
lab cart	1	30" X 42"	YES		
lab stool	1		YES		
computer table	1	30" X 60"	YES		
computer chair (adjustable)	1		YES		
storage cabinets	1		YES		

FACULTY CONTACT: G. B. Morey

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GS.RL.7 NET AREA: 140 ASF

ROOM NAME: MICROSCOPY LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: With the following laboratories in Group H.

GS.RL.4 Geophysics Laboratory
GS.RL.5 Petrographic Laboratory
GS.RL.6 U/Th Disequilibrium Laboratory
GS.RL.8 Radioactive Source Storage Room

SERVICES

electrical: 110 volt single phase: plug mold, bench height
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 6 ln ft
built-in wall cabinets: 6 ln ft

OTHER REQUIREMENTS

This laboratory could be located within the Cuttings Laboratory.

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	1	36" X 96"	YES		
lab cart	1	30" X 42"	YES		
lab stool	1		YES		
computer table	1	30" X 60"	YES		
computer chair (adjustable)	1		YES		
storage cabinets	1		YES		

FACULTY CONTACT: G. B. Morey

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GS.RL.8 NET AREA: 60 ASF

ROOM NAME: RADIOACTIVE SOURCE STORAGE ROOM

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 0

LOCATION: With the following laboratories in Group H.

GS.RL.4 Geophysics Laboratory
GS.RL.5 Petrographic Laboratory
GS.RL.6 U/Th Disequilibrium Laboratory
GS.RL.7 Microscopy Laboratory

SERVICES

electrical: 110 volt single phase: plug mold, bench height
lighting: fluorescent
climate control

CASEWORK, HOODS, FIXTURES

built-in full height storage cabinets: 6 ln ft

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS

FACULTY CONTACT: G. B. Morey

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GS.RL.9 NET AREA: 560 ASF

ROOM NAME: SEDIMENT ANALYSIS LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 4

LOCATION: With the following laboratories in Group E, Subgroup 6:

GS.RL.10 Sediment Disaggregation Laboratory
GS.RL.11 Rock Preparation Laboratory (Dirty)
GS.RL.12 Rock Preparation Laboratory (Clean)

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: 1 outlet
208 volt three phase: 1 outlet
CW and HW at base cabinet with sink and at stone sink
N, NG, comp air, vacuum, deionized water at base cabinet
emergency shower/eye wash near fume hood
communications: voice and data
lighting: fluorescent
climate control
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 12 ln ft
built-in wall cabinets: 12 ln ft
4' fume hood with sink, acid drain, CW, HW, N, NG, comp air, vacuum, and cabinet beneath for acids and flammables
6' stone sink with sediment trap

OTHER REQUIREMENTS

Activities in this laboratory are very noisy.

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	1	36" X 96"	YES		
lab cart	1	30" X 42"	YES		
lab stool	1		YES		
computer table	1	30" X 60"	YES		
computer chair (adjustable)	1		YES		
storage cabinets	1		YES		

FACULTY CONTACT: G. B. Morey

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GS.RL.10 NET AREA: 280 ASF

ROOM NAME: SEDIMENT DISAGGREGATION LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 4

LOCATION: With the following laboratories in Group E, Subgroup 6:

GS.RL.9 Sediment Analysis Laboratory
GS.RL.11 Rock Preparation Laboratory (Dirty)
GS.RL.12 Rock Preparation Laboratory (Clean)

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase:
208 volt three phase:
CW and HW at base cabinet with sink and at stone sink
N, NG, comp air, vacuum, deionized water at base cabinet
emergency shower/eye wash near fume hood
communications: voice and data
lighting: fluorescent
climate control
ventilation system must be cabable of removing large amounts of dust
floor drain
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 6 ln ft
built-in wall cabinets: 24 ln ft
4' fume hood with sink, acid drain, CW, HW, N, NG, comp air, vacuum, and cabinet beneath for acids and flammables
6' stone sink with sediment trap

OTHER REQUIREMENTS

Activities in this laboratory produce unusual noise, vibration, and dust; heavy floor loading required.

FINISHES, FEATURES

room height clear: 12'
floor: vinyl composition tile
walls: painted gypsum board
door: 36" wide with 24" fixed leaf
white board: 8 ln ft
ceiling: open to floor above
base: resilient vinyl
floor loading: > 125 psf (consult user)
security: lockable door
wall clock and telephone

(continued on next page)

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	1	36" X 96"	YES		
lab cart	1	30" X 42"	YES		
lab stool	1		YES		
computer table	1	30" X 60"	YES		
computer chair (adjustable)	1		YES		
storage cabinets	1		YES		

FACULTY CONTACT: G. B. Morey

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GS.RL.11 NET AREA: 560 ASF

ROOM NAME: ROCK PREPARATION LABORATORY (DIRTY)

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: With the following laboratories in Group E, Subgroup 6:

GS.RL.9 Sediment Analysis Laboratory
GS.RL.10 Sediment Disaggregation Laboratory
GS.RL.12 Rock Preparation Laboratory (Clean)

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: 4 outlets
208 volt three phase: 4 outlets
heavy-duty electrical: kW
CW and HW at base cabinet with sink and at stone sink
N, NG, comp air, vacuum, deionized water at base cabinet
emergency shower/eye wash near fume hood
communications: voice and data
lighting: fluorescent
climate control
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 12 ln ft
built-in wall cabinets: 12 ln ft
4' fume hood with sink, acid drain, CW, HW, N, NG, comp air, vacuum, and cabinet beneath for acids and flammables
6' stone sink

OTHER REQUIREMENTS

Activities in this laboratory produce unusual noise, vibration, and dust; heavy floor loading required.

FINISHES, FEATURES

room height clear: 12'
floor: vinyl composition tile
walls: painted gypsum board
door: 36" wide with 24" fixed leaf
white board: 8 ln ft
ceiling: open to floor above
base: resilient vinyl
floor loading: > 125 psf (consult user)
security: lockable door
wall clock and telephone

(continued on next page)

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	1	36" X 96"	YES		
lab cart	1	30" X 42"	YES		
lab stool	1		YES		
computer table	1	30" X 60"	YES		
computer chair (adjustable)	1		YES		
storage cabinets	1		YES		

FACULTY CONTACT: G. B. Morey

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GS.RL.12 NET AREA: 280 ASF

ROOM NAME: ROCK PREPARATION LABORATORY (CLEAN)

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: With the following laboratories in Group E, Subgroup 6:

GS.RL.9 Sediment Analysis Laboratory
GS.RL.10 Sediment Disaggregation Laboratory
GS.RL.11 Rock Preparation Laboratory (Dirty)

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: 4 outlets
208 volt three phase: 4 outlets
heavy-duty electrical: kW
CW and HW at base cabinet with sink and at stone sink
N, NG, comp air, vacuum, deionized water at base cabinet
emergency shower/eye wash near fume hood
communications: voice and data
lighting: fluorescent
climate control
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 12 ln ft
built-in wall cabinets: 12 ln ft
4' fume hood with sink, acid drain, CW, HW, N, NG, comp air, vacuum, and cabinet beneath for acids and flammables
6' stone sink

OTHER REQUIREMENTS

Activities in this laboratory are very noisy.

FINISHES, FEATURES

room height clear: 12'
floor: vinyl composition tile
walls: painted gypsum board
door: 36" wide with 24" fixed leaf
white board: 8 ln ft
ceiling: open to floor above
base: resilient vinyl
floor loading: 125 psf
security: lockable door
wall clock and telephone

(continued on next page)

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	1	36" X 96"	YES		
lab cart	1	30" X 42"	YES		
lab stool	1		YES		
computer table	1	30" X 60"	YES		
computer chair (adjustable)	1		YES		
storage cabinets	1		YES		

FACULTY CONTACT: G. B. Morey

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GS.CI. 1 NET AREA: 280 ASF

ROOM NAME: X-RAY LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: With the following laboratories in Group M, Subgroup 2:

GG.CI.3 X-Ray Diffraction and Fluorescence Laboratory
A1.CI.1 X-Ray Laboratory

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: 4 outlets
208 volt three phase: 4 outlets
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
cleanliness:
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 12 ln ft
built-in wall cabinets: 12 ln ft
12' laminar flow clean bench (exhausted)

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	1	36" X 96"	YES		
lab cart	1	30" X 42"	YES		
lab stool	1		YES		
computer table	1	30" X 60"	YES		
computer chair (adjustable)	1		YES		
storage cabinets	1		YES		

FACULTY CONTACT: G. B. Morey

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GS.SS. 1 NET AREA: 2,880 ASF

ROOM NAME: MAPS AND PUBLICATIONS SALES ROOM

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 5

LOCATION: Locate to be easily accessible to general public, but away from classroom traffic.

SERVICES

electrical: 110 volt single phase, base outlets every 6 feet, all walls
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, HOODS, FIXTURES

sales counter: 12 ln ft

FINISHES, FEATURES

room height clear: 12'	ceiling: dropped, finished
floor: carpet	base: resilient vinyl
walls: painted gypsum board	white board: 4 ln ft
door: single	security: lockable door
window covering: blinds	telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
open shelving				YES	
storage cabinets				YES	

FACULTY CONTACT: G. B. Morey

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: GS.SS. 2 NET AREA: 840 ASF

ROOM NAME: COMPUTER OPERATIONS ROOM

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 5

LOCATION: With other computer laboratories in Group N.

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: 2 outlets
communications: voice and data
lighting: fluorescent (indirect)
climate control

CASEWORK, HOODS, FIXTURES

FINISHES, FEATURES

room height clear: 12'	ceiling: dropped, finished
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
computer table	5	30" X 60"	YES		
computer chair (adjustable)	5		YES		
tape storage cabinets	5		YES		

FACULTY CONTACT: G. B. Morey

Materials Science and Engineering

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: ME.FO.1-10 NET AREA: 180 ASF

ROOM NAME: FACULTY OFFICE

NUMBER OF ROOMS: 10 AVERAGE NUMBER OF OCCUPANTS: 1

LOCATION: In the office portion of the Materials Science and Engineering office/laboratory modules with the following other rooms:

ME.RO.1-20 Research Assistant Office
ME.OO.1-10 Other Office

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

open shelving: 200 ln ft

FINISHES, FEATURES

room height clear: 8'	ceiling: dropped, finished
floor: carpet	base: resilient vinyl
walls: painted gypsum board	white board: 4 ln ft
door: single	security: lockable door
window covering: blinds	telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
double pedestal desk	1	30"x60"	YES		
desk chair	1		YES		
conference table	1	30"x60"	YES		
side chair	2		YES		
computer table	1	30"x60"	YES		
computer chair (adjustable)	1		YES		
file cabinet (vertical)	4	4 drawer	YES		
waste basket	1		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: ME.RO.1-20 NET AREA: 150 ASF

ROOM NAME: RESEARCH ASSISTANT OFFICE

NUMBER OF ROOMS: 20 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: In the office portion of the Materials Science and Engineering office/laboratory modules with the following other rooms:

ME.RO.1-20 Research Assistant Office
ME.OO.1-10 Other Office

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

open shelving: 60 ln ft

FINISHES, FEATURES

room height clear: 8'	ceiling: dropped, finished
floor: carpet	base: resilient vinyl
walls: painted gypsum board	white board: 4 ln ft
door: single	security: lockable door
window covering: blinds	telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
double pedestal desk	2	30"x60"	YES		
desk chair	2		YES		
side chair	2		YES		
computer table	2	30"x60"	YES		
computer chair (adjustable)	2		YES		
file cabinet (vertical)	2	2 drawer	YES		
waste basket	2		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: ME.00.1-10 NET AREA: 150 ASF

ROOM NAME: OTHER OFFICE

NUMBER OF ROOMS: 10 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: In the office portion of the Materials Science and Engineering office/laboratory modules with the following other rooms:

ME.RO.1-20 Research Assistant Office
ME.00.1-10 Other Office

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

open shelving: 60 ln ft

FINISHES, FEATURES

room height clear: 8'
floor: carpet
walls: painted gypsum board
door: single
window covering: blinds
ceiling: dropped, finished
base: resilient vinyl
white board: 4 ln ft
security: lockable door
telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
double pedestal desk	2	30"x60"	YES		
desk chair	2		YES		
side chair	2		YES		
computer table	2	30"x60"	YES		
computer chair (adjustable)	2		YES		
file cabinet (vertical)	2	2 drawer	YES		
waste basket	2		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: ME.RL.1-12 NET AREA: 280 ASF

ROOM NAME: RESEARCH LABORATORY

NUMBER OF ROOMS: 12 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: Arrange two labs from ME.RL.13-36 (560 ASF) with one lab from ME.RL.1-12 (280 ASF).

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: 2 outlets, chase wall
208 volt three phase: 1 outlet, chase wall
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 12 ln ft
built-in wall cabinets: 12 ln ft

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	2	36" X 96"	YES		
lab cart	1		YES		
lab stool	2		YES		
computer table	1	30" X 60"	YES		
computer chair (adjustable)	2		YES		

FACULTY CONTACT: D. Shores

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: ME.RL.13-36 NET AREA: 560 ASF

ROOM NAME: RESEARCH LABORATORY

NUMBER OF ROOMS: 24 AVERAGE NUMBER OF OCCUPANTS: 4

LOCATION: Arrange two labs from ME.RL.13-36 (560 ASF) with one lab from ME.RL.1-12 (280 ASF).

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: 2 outlets, chase wall
208 volt three phase: 1 outlet, chase wall
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
emergency shower/eye wash near fume hood
communications: voice and data
lighting: fluorescent
climate control
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 12 ln ft
built-in wall cabinets: 12 ln ft
4' fume hood with sink, acid drain, CW, HW, N, NG, comp air, vacuum, and cabinet beneath for acids and flammables

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	4	36" X 96"	YES		
lab cart	1		YES		
lab stool	4		YES		
computer table	1	30" X 60"	YES		
computer chair (adjustable)	2		YES		

FACULTY CONTACT: D. Shores

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: ME.RL.37-38 NET AREA: 560 ASF

ROOM NAME: COMPUTATIONAL LABORATORY

NUMBER OF ROOMS: 2 AVERAGE NUMBER OF OCCUPANTS: 18

LOCATION: With other computer laboratories in Group N.

SERVICES

electrical: 110 volt single phase: plug mold, bench height
communications: voice and data
lighting: fluorescent (indirect)
climate control

CASEWORK, HOODS, FIXTURES

FINISHES, FEATURES

room height clear: 12'	ceiling: dropped, finished
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
computer table	18	30" X 60"	YES		
computer chair (adjustable)	18		YES		

FACULTY CONTACT: D. Shores

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: ME.CI.1-6 NET AREA: 560 ASF

ROOM NAME: MICROSCOPY LABORATORY

NUMBER OF ROOMS: 6 AVERAGE NUMBER OF OCCUPANTS: 4

LOCATION: With other microscopy laboratories requiring vibration isolation in Group M. Near to:

ME.CI.7-12 Microscopy Preparation Laboratories.

SERVICES

electrical: 110 volt single phase: plug mold, bench height
120 volt single phase, 30 amp: filtered and surge proof
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
cleanliness:
vibration isolation: low frequencies
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 12 ln ft
built-in wall cabinets: 12 ln ft

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	2	36" X 96"	YES		
lab cart	1		YES		
lab stool	2		YES		
computer table	1	30" X 60"	YES		
computer chair (adjustable)	2		YES		

FACULTY CONTACT: D. Shores

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: ME.CI.7-12 NET AREA: 280 ASF

ROOM NAME: MICROSCOPY PREPARATION LABORATORY

NUMBER OF ROOMS: 6 AVERAGE NUMBER OF OCCUPANTS: 4

LOCATION: Near to ME.CI.1-6 Microscopy Laboratories.

SERVICES

electrical: 110 volt single phase: plug mold, bench height
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
emergency shower/eye wash near fume hood
communications: voice and data
lighting: fluorescent
climate control
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 12 ln ft
built-in wall cabinets: 12 ln ft
4' fume hood with sink, acid drain, CW, HW, N, NG, comp air, vacuum, and cabinet beneath for acids and flammables

FINISHES, FEATURES

room height clear: 12'
ceiling: open to floor above
floor: vinyl composition tile
base: resilient vinyl
walls: painted gypsum board
floor loading: 125 psf
door: 36" wide with 24" fixed leaf
security: lockable door
white board: 8 ln ft
wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	2	36" X 96"	YES		
lab cart	1		YES		
lab stool	2		YES		
computer table	1	30" X 60"	YES		
computer chair (adjustable)	2		YES		

FACULTY CONTACT: D. Shores

Advanced Technology Laboratories I

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: A1.AO.1 NET AREA: 180 ASF

ROOM NAME: DIRECTOR OFFICE

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 1

LOCATION: In the Advanced Technology Laboratories I administrative office suite with the following rooms:

A1.AO.2-3 Associate Director Office
A1.AO.4 Administrator Office
A1.AO.5 Accountant Office
A1.AO.6 Clerical/Reception Area
A1.AO.7 Conference Room

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

open shelving: 200 ln ft

FINISHES, FEATURES

room height clear: 8'	ceiling: dropped, finished
floor: carpet	base: resilient vinyl
walls: painted gypsum board	white board: 4 ln ft
door: single	security: lockable door
window covering: blinds	telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
double pedestal desk	1	30"x60"	YES		
desk chair	1		YES		
conference table	1	36"x60"	YES		
side chair	4		YES		
computer table	1	30"x60"	YES		
computer chair (adjustable)	1		YES		
waste basket	1		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: A1.A0.2-3 NET AREA: 150 ASF

ROOM NAME: ASSOCIATE DIRECTOR OFFICE

NUMBER OF ROOMS: 2 AVERAGE NUMBER OF OCCUPANTS: 1

LOCATION: In the Advanced Technology Laboratories I administrative office suite with the following rooms:

A1.A0.1 Director Office
A1.A0.4 Administrator Office
A1.A0.5 Accountant Office
A1.A0.6 Clerical/Reception Area
A1.A0.7 Conference Room

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

open shelving: 200 ln ft

FINISHES, FEATURES

room height clear: 8'	ceiling: dropped, finished
floor: carpet	base: resilient vinyl
walls: painted gypsum board	white board: 4 ln ft
door: single	security: lockable door
window covering: blinds	telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
double pedestal desk	1	30"x60"	YES		
desk chair	1		YES		
conference table	1	36"x60"	YES		
side chair	4		YES		
computer table	1	30"x60"	YES		
computer chair (adjustable)	1		YES		
file cabinet (vertical)	4	4 drawer	YES		
waste basket	1		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: A1.AO.4 NET AREA: 150 ASF

ROOM NAME: ADMINISTRATOR OFFICE

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 1

LOCATION: In the Advanced Technology Laboratories I administrative office suite with the following rooms:

A1.AO.1 Director Office
A1.AO.2-3 Associate Director Office
A1.AO.5 Accountant Office
A1.AO.6 Clerical/Reception Area
A1.AO.7 Conference Room

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

open shelving: 60 ln ft

FINISHES, FEATURES

room height clear: 8'	ceiling: dropped, finished
floor: carpet	base: resilient vinyl
walls: painted gypsum board	white board: 4 ln ft
door: single	security: lockable door
window covering: blinds	telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
single pedestal desk with typing return	1	30"x60"	YES		
secretarial chair	1		YES		
side chair	1		YES		
computer table	1	30"x60"	YES		
file cabinet (vertical)	4	4 drawer			
waste basket	1		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: A1.AO.5 NET AREA: 150 ASF

ROOM NAME: ACCOUNTANT OFFICE

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 1

LOCATION: In the Advanced Technology Laboratories I administrative office suite with the following rooms:

A1.AO.1 Director Office
A1.AO.2-3 Associate Director Office
A1.AO.4 Administrator Office
A1.AO.6 Clerical/Reception Area
A1.AO.7 Conference Room

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

open shelving: 60 ln ft

FINISHES, FEATURES

room height clear: 8'	ceiling: dropped, finished
floor: carpet	base: resilient vinyl
walls: painted gypsum board	white board: 4 ln ft
door: single	security: lockable door
window covering: blinds	telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
single pedestal desk with typing return	1	30"x60"	YES		
secretarial chair	1		YES		
side chair	1		YES		
computer table	1	30"x60"	YES		
file cabinet (vertical)	4	4 drawer			
waste basket	1		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: A1.A0.6 NET AREA: 300 ASF

ROOM NAME: CLERICAL/RECEPTION AREA

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: In the Advanced Technology Laboratories I administrative office suite with the following rooms:

A1.A0.1 Director Office
A1.A0.2-3 Associate Director Office
A1.A0.4 Administrator Office
A1.A0.5 Accountant Office
A1.A0.7 Conference Room

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

open shelving: 240 ln ft

FINISHES, FEATURES

room height clear: 8'
floor: carpet
walls: painted gypsum board
door: single
window covering: blinds
ceiling: dropped, finished
base: resilient vinyl
white board: 4 ln ft
security: lockable door
telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
single pedestal desk with typing return	2	30"x60"	YES		
secretarial chair	2		YES		
computer table	2	30"x60"	YES		
waste basket	2		YES		
guest chair	4		YES		
occasional table	1	30"x30"	YES		
small magazine rack	1		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: A1.A0.7 NET AREA: 300 ASF

ROOM NAME: CONFERENCE ROOM

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 10

LOCATION: In the Advanced Technology Laboratories I administrative office suite with the following rooms:

A1.A0.1 Director Office
A1.A0.2-3 Associate Director Office
A1.A0.4 Administrator Office
A1.A0.5 Accountant Office
A1.A0.6 Clerical/Reception Area

SERVICES

electrical: 110 volt single phase
hot and cold water at base cabinet with sink
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

built-in base cabinets: 12 ln ft
built-in wall cabinets: 12 ln ft
wall mounted projection screen (6' wide)

FINISHES, FEATURES

room height clear: 8'	ceiling: dropped, finished
floor: carpet	base: resilient vinyl
walls: painted gypsum board	white board: 4 ln ft
door: single	security: lockable door
window covering: blinds	telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
conference table	1	4'x8'	YES		
side chair	10		YES		
waste basket	2		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: A1.RO.1-6 NET AREA: 150 ASF

ROOM NAME: RESEARCH ASSISTANT OFFICE

NUMBER OF ROOMS: 6 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: In the office portions of the Advanced Technology Laboratories I office/laboratory modules with the following other offices:

A1.00.1-4 Visiting Faculty Office
A1.00.5-8 Scientist Office
A1.00.9 Technician Office

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

open shelving: 60 ln ft

FINISHES, FEATURES

room height clear: 8'	ceiling: dropped, finished
floor: carpet	base: resilient vinyl
walls: painted gypsum board	white board: 4 ln ft
door: single	security: lockable door
window covering: blinds	telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
double pedestal desk	2	30"x60"	YES		
desk chair	2		YES		
side chair	2		YES		
computer table	2	30"x60"	YES		
computer chair (adjustable)	2		YES		
file cabinet (vertical)	2	2 drawer	YES		
waste basket	2		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: A1.00.1-4 NET AREA: 150 ASF

ROOM NAME: VISITING FACULTY OFFICE

NUMBER OF ROOMS: 4 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: In the office portions of the Advanced Technology Laboratories I office/laboratory modules with the following other offices:

A1.R0.1-6 Research Assistant Office
A1.00.5-8 Scientist Office
A1.00.9 Technician Office

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

open shelving: 120 ln ft

FINISHES, FEATURES

room height clear: 8'	ceiling: dropped, finished
floor: carpet	base: resilient vinyl
walls: painted gypsum board	white board: 4 ln ft
door: single	security: lockable door
window covering: blinds	telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
double pedestal desk	2	30"x60"	YES		
desk chair	2		YES		
side chair	2		YES		
computer table	2	30"x60"	YES		
file cabinet (vertical)	2	4 drawer	YES		
waste basket	2		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: A1.00.5-8 NET AREA: 150 ASF

ROOM NAME: SCIENTIST OFFICE

NUMBER OF ROOMS: 4 AVERAGE NUMBER OF OCCUPANTS: 1

LOCATION: In the office portions of the Advanced Technology Laboratories I office/laboratory modules with the following other offices:

A1.R0.1-6 Research Assistant Office
A1.00.1-4 Visiting Faculty Office
A1.00.9 Technician Office

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

open shelving: 120 ln ft

FINISHES, FEATURES

room height clear: 8'	ceiling: dropped, finished
floor: carpet	base: resilient vinyl
walls: painted gypsum board	white board: 4 ln ft
door: single	security: lockable door
window covering: blinds	telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
double pedestal desk	1	30"x60"	YES		
desk chair	1		YES		
side chair	1		YES		
computer table	1	30"x60"	YES		
file cabinet (vertical)	1	4 drawer	YES		
waste basket	1		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: A1.00.9 NET AREA: 150 ASF

ROOM NAME: TECHNICIAN OFFICE

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: In the office portions of the Advanced Technology Laboratories I office/laboratory modules with the following other offices:

A1.R0.1-6 Research Assistant Office
A1.00.1-4 Visiting Faculty Office
A1.00.5-8 Scientist Office

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

open shelving: 120 ln ft

FINISHES, FEATURES

room height clear: 8'	ceiling: dropped, finished
floor: carpet	base: resilient vinyl
walls: painted gypsum board	white board: 4 ln ft
door: single	security: lockable door
window covering: blinds	telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
double pedestal desk	2	30"x60"	YES		
desk chair	2		YES		
side chair	2		YES		
computer table	2	30"x60"	YES		
file cabinet (vertical)	2	4 drawer	YES		
waste basket	2		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: A1.RL.1 NET AREA: 280 ASF

ROOM NAME: FILM BALANCE LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: With the following laboratories in Group J, Subgroup 1:

A1.RL.2 Rheometry: Stress And Fluids Laboratory
A1.RL.3 Photography Laboratory: Dark Room
A1.RL.4 Spectroscopic Ellipsometry Laboratory
A1.RL.5 Capillary Rheometer Laboratory
A1.RL.6 Infrared/Fourier Transform Spectrometer Laboratory
A1.RL.7 Permeability Measuring System Laboratory
A1.RL.8 UHV-CVD Synthesis/Characterization Laboratory
A1.RL.9 Vapor Deposition System Laboratory

SERVICES

electrical: 110 volt single phase: plug mold, bench height
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
emergency shower/eye wash near fume hood
communications: voice and data
lighting: fluorescent
climate control
cleanliness:
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 20 ln ft
built-in wall cabinets: 20 ln ft
4' fume hood with sink, acid drain, CW, HW, N, NG, comp air, vacuum, and cabinet beneath for acids and flammables

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab cart	1		YES		
computer table	1	30" X 60"	YES		
computer chair (adjustable)	1		YES		

FACULTY CONTACT: D. F. Evans

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: A1.RL.2 NET AREA: 280 ASF

ROOM NAME: RHEOMETRY: STRESS AND FLUIDS LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: With the following laboratories in Group J, Subgroup 1:

A1.RL.1 Film Balance Laboratory
A1.RL.3 Photography Laboratory: Dark Room
A1.RL.4 Spectroscopic Ellipsometry Laboratory
A1.RL.5 Capillary Rheometer Laboratory
A1.RL.6 Infrared/Fourier Transform Spectrometer Laboratory
A1.RL.7 Permeability Measuring System Laboratory
A1.RL.8 UHV-CVD Synthesis/Characterization Laboratory
A1.RL.9 Vapor Deposition System Laboratory

SERVICES

electrical: 110 volt single phase: plug mold, bench height
208 volt single phase, 20 amp:
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
vibration isolation: not stringent
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 6 ln ft
built-in wall cabinets: 6 ln ft

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
computer table	2	30" X 60"	YES		
computer chair (adjustable)	2		YES		

FACULTY CONTACT: D. F. Evans

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: A1.RL.3 NET AREA: 280 ASF

ROOM NAME: PHOTOGRAPHY LABORATORY: DARK ROOM

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 1

LOCATION: With the following laboratories in Group J, Subgroup 1:

A1.RL.1 Film Balance Laboratory
A1.RL.2 Rheometry: Stress And Fluids Laboratory
A1.RL.4 Spectroscopic Ellipsometry Laboratory
A1.RL.5 Capillary Rheometer Laboratory
A1.RL.6 Infrared/Fourier Transform Spectrometer Laboratory
A1.RL.7 Permeability Measuring System Laboratory
A1.RL.8 UHV-CVD Synthesis/Characterization Laboratory
A1.RL.9 Vapor Deposition System Laboratory

SERVICES

electrical: 110 volt single phase: plug mold, bench height
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
emergency shower/eye wash near fume hood
communications: voice and data
lighting: fluorescent
climate control
floor drain
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 20 ln ft
built-in wall cabinets: 20 ln ft
4' fume hood with sink, acid drain, CW, HW, N, NG, comp air, vacuum, and cabinet beneath for acids and flammables

FINISHES, FEATURES

room height clear: 12'
ceiling: open to floor above
floor: vinyl composition tile
base: resilient vinyl
walls: painted gypsum board
floor loading: 125 psf
door: 36" wide with 24" fixed leaf
security: lockable door
white board: 8 ln ft
wall clock and telephone
room must be windowless

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	1	36" X 72"	YES		
lab stool	1		YES		

FACULTY CONTACT: D. F. Evans

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: A1.RL.4 NET AREA: 280 ASF

ROOM NAME: SPECTROSCOPIC ELLIPSOMETRY LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: With the following laboratories in Group J, Subgroup 1:

A1.RL.1 Film Balance Laboratory
A1.RL.2 Rheometry: Stress And Fluids Laboratory
A1.RL.3 Photography Laboratory: Dark Room
A1.RL.5 Capillary Rheometer Laboratory
A1.RL.6 Infrared/Fourier Transform Spectrometer Laboratory
A1.RL.7 Permeability Measuring System Laboratory
A1.RL.8 UHV-CVD Synthesis/Characterization Laboratory
A1.RL.9 Vapor Deposition System Laboratory

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase:
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
emergency shower/eye wash near fume hood
communications: voice and data
lighting: fluorescent
climate control
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 15 ln ft
built-in wall cabinets: 15 ln ft
4' fume hood with sink, acid drain, CW, HW, N, NG, comp air, vacuum, and cabinet beneath for acids and flammables

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
computer table	1	30" X 60"	YES		
computer chair (adjustable)	1		YES		

FACULTY CONTACT: D. F. Evans

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: A1.RL.5 NET AREA: 280 ASF

ROOM NAME: CAPILLARY RHEOMETER LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: With the following laboratories in Group J, Subgroup 1:

A1.RL.1 Film Balance Laboratory
A1.RL.2 Rheometry: Stress And Fluids Laboratory
A1.RL.3 Photography Laboratory: Dark Room
A1.RL.4 Spectroscopic Ellipsometry Laboratory
A1.RL.6 Infrared/Fourier Transform Spectrometer Laboratory
A1.RL.7 Permeability Measuring System Laboratory
A1.RL.8 UHV-CVD Synthesis/Characterization Laboratory
A1.RL.9 Vapor Deposition System Laboratory

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt three phase:
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
emergency shower/eye wash near fume hood
communications: voice and data
lighting: fluorescent
climate control
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 20 ln ft
built-in wall cabinets: 20 ln ft
4' fume hood with sink, acid drain, CW, HW, N, NG, comp air, vacuum, and cabinet beneath for acids and flammables

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
computer table	1	30" X 60"	YES		
computer chair (adjustable)	1		YES		

FACULTY CONTACT: D. F. Evans

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: A1.RL.6 NET AREA: 280 ASF

ROOM NAME: INFRARED/FOURIER TRANSFORM SPECTROMETER LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: With the following laboratories in Group J, Subgroup 1:

A1.RL.1 Film Balance Laboratory
A1.RL.2 Rheometry: Stress And Fluids Laboratory
A1.RL.3 Photography Laboratory: Dark Room
A1.RL.4 Spectroscopic Ellipsometry Laboratory
A1.RL.5 Capillary Rheometer Laboratory
A1.RL.7 Permeability Measuring System Laboratory
A1.RL.8 UHV-CVD Synthesis/Characterization Laboratory
A1.RL.9 Vapor Deposition System Laboratory

SERVICES

electrical: 110 volt single phase: plug mold, bench height
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
emergency shower/eye wash near fume hood
communications: voice and data
lighting: fluorescent
climate control
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 20 ln ft
built-in wall cabinets: 20 ln ft
4' fume hood with sink, acid drain, CW, HW, N, NG, comp air, vacuum, and cabinet beneath for acids and flammables

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
computer table	1	30" X 60"	YES		
computer chair (adjustable)	1		YES		

FACULTY CONTACT: D. F. Evans

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: A1.RL.7 NET AREA: 280 ASF

ROOM NAME: PERMEABILITY MEASURING SYSTEM LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: With the following laboratories in Group J, Subgroup 1:

A1.RL.1 Film Balance Laboratory
A1.RL.2 Rheometry: Stress And Fluids Laboratory
A1.RL.3 Photography Laboratory: Dark Room
A1.RL.4 Spectroscopic Ellipsometry Laboratory
A1.RL.5 Capillary Rheometer Laboratory
A1.RL.6 Infrared/Fourier Transform Spectrometer Laboratory
A1.RL.8 UHV-CVD Synthesis/Characterization Laboratory
A1.RL.9 Vapor Deposition System Laboratory

SERVICES

electrical: 110 volt single phase: plug mold, bench height
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 20 ln ft
built-in wall cabinets: 20 ln ft

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab stool	1		YES		
computer table	1	30" X 60"	YES		
computer chair (adjustable)	1		YES		

FACULTY CONTACT: D. F. Evans

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: A1.RL.8 NET AREA: 560 ASF

ROOM NAME: UHV-CVD SYNTHESIS/CHARACTERIZATION LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 6

LOCATION: With the following laboratories in Group J, Subgroup 1:

A1.RL.1 Film Balance Laboratory
A1.RL.2 Rheometry: Stress And Fluids Laboratory
A1.RL.3 Photography Laboratory: Dark Room
A1.RL.4 Spectroscopic Ellipsometry Laboratory
A1.RL.5 Capillary Rheometer Laboratory
A1.RL.6 Infrared/Fourier Transform Spectrometer Laboratory
A1.RL.7 Permeability Measuring System Laboratory
A1.RL.9 Vapor Deposition System Laboratory

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: 1 outlet every 6 feet all 4 walls
208 volt three phase: 1 outlet on each wall
CW and HW at base cabinet with sink and at laminar flow bench with sink
N, NG, comp air, vacuum, deionized water at base cabinet
liquid nitrogen supply
emergency shower/eye wash near fume hood
communications: voice and data
lighting: fluorescent
climate control
cleanliness:
floor drain
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 30 ln ft
built-in wall cabinets: 30 ln ft
6' fume hood with sink, acid drain, CW, HW, N, NG, comp air, vacuum, and cabinet beneath for acids and flammables
laminar flow clean bench (exhausted) with sink

FINISHES, FEATURES

room height clear: 12'
ceiling: open to floor above
floor: vinyl composition tile
base: resilient vinyl
walls: painted gypsum board
floor loading: 125 psf
door: 36" wide with 24" fixed leaf
security: lockable door
white board: 8 ln ft
wall clock and telephone

(continued on next page)

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	1	36" X 72"	YES		
lab cart	3		YES		
lab stool	3		YES		
computer table	3	30" X 60"	YES		
computer chair (adjustable)	3		YES		

FACULTY CONTACT: D. F. Evans

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: A1.RL.9 NET AREA: 560 ASF

ROOM NAME: VAPOR DEPOSITION SYSTEM LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 4

LOCATION: With the following laboratories in Group J, Subgroup 1:

A1.RL.1 Film Balance Laboratory
A1.RL.2 Rheometry: Stress And Fluids Laboratory
A1.RL.3 Photography Laboratory: Dark Room
A1.RL.4 Spectroscopic Ellipsometry Laboratory
A1.RL.5 Capillary Rheometer Laboratory
A1.RL.6 Infrared/Fourier Transform Spectrometer Laboratory
A1.RL.7 Permeability Measuring System Laboratory
A1.RL.8 UHV-CVD Synthesis/Characterization Laboratory

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: 5 outlets
240 volt three phase: 4 outlets
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
emergency shower/eye wash near fume hood
communications: voice and data
lighting: fluorescent
climate control
floor drain
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 20 ln ft
built-in wall cabinets: 20 ln ft
6' fume hood with sink, acid drain, CW, HW, N, NG, comp air, vacuum, and cabinet beneath for acids and flammables
6' laminar flow clean bench (exhausted)

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
computer table	3	30" X 60"	YES		
computer chair (adjustable)	3		YES		
storage cabinets	2	36" X 72"	YES		

FACULTY CONTACT: D. F. Evans

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: A1.RL.10 NET AREA: 280 ASF

ROOM NAME: PROCESSING LABORATORY: TWIN SCREW EXTRUDER

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 3

LOCATION: With A1.RL.11 Processing Laboratory: Pull Trusion.

SERVICES

electrical: 110 volt single phase: plug mold, bench height
460 volt three phase: 1 outlet
230 volt three phase: 1 outlet
heavy-duty electrical: kW
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
emergency shower/eye wash near fume hood
communications: voice and data
lighting: fluorescent
climate control
chilled water
floor drain (to remove cooling water)
overhead venting
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 20 ln ft
built-in wall cabinets: 20 ln ft
6' fume hood with sink, acid drain, CW, HW, N, NG, comp air, vacuum, and cabinet beneath for acids and flammables

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab cart	1	30" X "42	YES		heavy-duty
lab stool	1		YES		

FACULTY CONTACT: D. F. Evans

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: A1.RL.11 NET AREA: 1960 ASF

ROOM NAME: PROCESSING LABORATORY: PULL TRUSION

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 4

LOCATION: With A1.RL.10 Processing Laboratory: Twin Screw Extruder.

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt three phase: 2 outlets
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
emergency shower/eye wash near fume hood
communications: voice and data
lighting: fluorescent
climate control
chilled water
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 15 ln ft
built-in wall cabinets: 15 ln ft
4' fume hood with sink, acid drain, CW, HW, N, NG, comp air, vacuum, and cabinet beneath for acids and flammables

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

OTHER REQUIREMENTS

Room could be designed in two modes:

vertical mode: high bay 24' X 24' X 36' high, with vertical ductwork and venting at several levels

horizontal mode: 24' X 84' X 12' high, with horizontal ductwork and venting at several stages

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab cart	1	30" X 48"	YES		
lab stool	4		YES		
computer table	1	30" X 60"	YES		
computer chair (adjustable)	1		YES		

FACULTY CONTACT: D. F. Evans

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: A1.CI.1 NET AREA: 560 ASF

ROOM NAME: X-RAY LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 3

LOCATION: With the following laboratories in Group M, Subgroup 2:

GG.CI.3 X-Ray Diffraction and Fluorescence Laboratory
GS.CI.1 X-Ray Laboratory

SERVICES

electrical: 110 volt single phase: plug mold, bench height
208 volt single phase: 1 outlet
208 volt three phase: 3 outlets
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
chilled water: 2 connections
2 floor drains (for chilled water)
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 12 ln ft
built-in wall cabinets: 12 ln ft
open shelving: 20 ln ft

OTHER REQUIREMENTS

Must meet state and federal guidelines for use of radioactive materials (radioactive iron).

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab cart	1	30" X 42"	YES		
lab stool	2		YES		
computer table	2	30" X 60"	YES		
computer chair (adjustable)	2		YES		
storage cabinets	1	36" X 72"	YES		
room divider	1	12 ln ft	YES		

FACULTY CONTACT: D. F. Evans

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: A1.CI.2 NET AREA: 280 ASF

ROOM NAME: ATOMIC FORCE MICROSCOPY LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: With other microscopy laboratories requiring vibration isolation in Group M.

SERVICES

electrical: 110 volt single phase: plug mold, bench height
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
cleanliness:
vibration isolation: low frequencies
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 6 ln ft
built-in wall cabinets: 6 ln ft

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	1	30" X 96"			
lab stool	1				
computer table	1	30" X 60"			
computer chair (adjustable)	1				
storage cabinets	2	36" X 72"			

FACULTY CONTACT: D. F. Evans

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: A1.CI.3 NET AREA: 560 ASF

ROOM NAME: SCANNING TUNNELING MICROSCOPY LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 4

LOCATION: Near to A1.CI.4 STM Preparation Laboratory.

With other microscopy laboratories requiring vibration isolation in Group M.

SERVICES

electrical: 110 volt single phase: plug mold, bench height
120 volt single phase, 30 amp: filtered and surge proof
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
cleanliness:
vibration isolation: low frequencies
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 6 ln ft
built-in full height storage cabinets: 4 ln ft

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
computer table	4	30" X 60"	YES		
computer chair (adjustable)	4		YES		

FACULTY CONTACT: D. F. Evans

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: A1.CI.4 NET AREA: 560 ASF

ROOM NAME: STM PREPARATION LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 4

LOCATION: Near to A1.CI.3 Scanning Tunneling Microscopy Laboratory.

SERVICES

electrical: 110 volt single phase: plug mold, bench height
CW and HW at base cabinet with sink and at center island with sink
N, NG, comp air, vacuum, deionized water at base cabinet
and at center island
emergency shower/eye wash near fume hood
communications: voice and data
lighting: fluorescent
climate control
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 30 ln ft
built-in wall cabinets: 30 ln ft
center island: 12 ln ft
6' fume hood with sink, acid drain, CW, HW, N, NG, comp air, vacuum,
and cabinet beneath for acids and flammables
6' laminar flow clean bench (non-exhausted)

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
refrigerator	1			YES	

FACULTY CONTACT: D. F. Evans

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: A1.CI.5 NET AREA: 280 ASF

ROOM NAME: TRANSMISSION ELECTRON MICROSCOPY LABORATORY (CM 30)

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: Near to A1.CI.7 Transmission Electron Microscopy: Preparation Room.

With other microscopy laboratories requiring vibration isolation in Group M.

SERVICES

electrical: 110 volt single phase: plug mold, bench height
208 volt single phase, 70 amp: 2 outlets
N at base cabinet
communications: voice and data
lighting: fluorescent
climate control
cleanliness:
vibration isolation:
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 6 ln ft
I-beam trolley for TEM components

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
computer chair (adjustable)	1			YES	

FACULTY CONTACT: D. F. Evans

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: A1.CI.6 NET AREA: 280 ASF

ROOM NAME: TRANSMISSION ELECTRON MICROSCOPY LABORATORY (CM 20)

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: Near to A1.CI.7 Transmission Electron Microscopy: Preparation Room.

With other microscopy laboratories requiring vibration isolation in Group M.

SERVICES

electrical: 110 volt single phase: plug mold, bench height
208 volt single phase, 70 amp: 2 outlets
N at base cabinet
communications: voice and data
lighting: fluorescent
climate control
cleanliness:
vibration isolation:
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 6 ln ft
I-beam trolley for TEM components

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
computer chair (adjustable)	1			YES	

FACULTY CONTACT: D. F. Evans

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: A1.CI.7 NET AREA: 280 ASF

ROOM NAME: TRANSMISSION ELECTRON MICROSCOPY: PREPARATION ROOM

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: Near to:

A1.CI.5 Transmission Electron Microscopy Laboratory (CM 30)
A1.CI.6 Transmission Electron Microscopy Laboratory (CM 20)

SERVICES

electrical: 110 volt single phase: plug mold, bench height
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
emergency shower/eye wash near fume hood
communications: voice and data
lighting: fluorescent
climate control
cleanliness:
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 20 ln ft
built-in wall cabinets: 20 ln ft
4' fume hood with sink, acid drain, CW, HW, N, NG, comp air, vacuum, and cabinet beneath for acids and flammables

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab stool	2		YES		
computer table	1	30" X 60"	YES		
computer chair (adjustable)	1		YES		
storage cabinets	4	36" X 72"	YES		

FACULTY CONTACT: D. F. Evans

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: A1.CI.8 NET AREA: 280 ASF

ROOM NAME: VIDEO-ENHANCED MICROSCOPY LABORATORY

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 1

LOCATION: Near to other microscopy laboratories in Group M, Subgroups 3, 4, and 5.

SERVICES

electrical: 110 volt single phase: plug mold, bench height
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
vibration isolation:
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 20 ln ft
built-in wall cabinets: 20 ln ft
built-in table: 36" L X 25" W X 36" H

OTHER REQUIREMENTS

Room must be partioned into halves, one half for microscopes and one half for support.

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone
room must be windowless	

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	1	36" X 96"	YES		
computer table	1	30" X 60"	YES		
computer chair (adjustable)	1		YES		

FACULTY CONTACT: D. F. Evans

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: A1.SS.1 NET AREA: 280 ASF

ROOM NAME: ELECTRONICS AND TECHNICAL SERVICE WORKSHOP

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: Near to the following technical service laboratories in Group O:

CI.SS.3-5 Common Instrumentation Shop/Technical Service

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase:
208 volt three phase:
heavy-duty electrical: kW
special dedicated electrical circuits or special electrical grounding
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in full height storage cabinets: 12 ln ft
open shelving: 12 ln ft

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	1	36" X 96"	YES		
lab cart	1		YES		
lab stool	2		YES		

FACULTY CONTACT: D. F. Evans

Advanced Technology Laboratories II

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: A2.AO.1 NET AREA: 180 ASF

ROOM NAME: DIRECTOR OFFICE

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 1

LOCATION: In office suite comprising rooms:

A2.AO.1 Director Office
A2.AO.2 Clerical/Reception Area
A2.FO.1-2 Faculty Office
A2.RO.1-3 Research Assistant Office
A2.OO.1-2 Post-Doc/Visitor Office

Adjacent to Clerical/Reception Area.

Near to:

A2.RL.1-4 Research Laboratory
A2.RL.5-10 Research Laboratory

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

open shelving: 200 ln ft

FINISHES, FEATURES

room height clear: 8'	ceiling: dropped, finished
floor: carpet	base: resilient vinyl
walls: painted gypsum board	white board: 4 ln ft
door: single	security: lockable door
window covering: blinds	telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
double pedestal desk	1	30"x60"	YES		
desk chair	1		YES		
conference table	1	30"x60"	YES		
side chair	2		YES		
computer table	1	30"x60"	YES		
computer chair (adjustable)	1		YES		
file cabinet (vertical)	4	4 drawer	YES		
waste basket	1		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: A2.AO.2 NET AREA: 300 ASF

ROOM NAME: CLERICAL/RECEPTION

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 1

LOCATION: In office suite comprising rooms:

A2.AO.1 Director Office
A2.AO.2 Clerical/Reception Area
A2.FO.1-2 Faculty Office
A2.RO.1-3 Research Assistant Office
A2.OO.1-2 Post-Doc/Visitor Office

Adjacent to Director's Office.

Near to:

A2.RL.1-4 Research Laboratory
A2.RL.5-10 Research Laboratory

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

open shelving: 160 ln ft

FINISHES, FEATURES

room height clear: 8'	ceiling: dropped, finished
floor: carpet	base: resilient vinyl
walls: painted gypsum board	white board: 4 ln ft
door: single	security: lockable door
window covering: blinds	telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
double pedestal desk with return	2	30"x60"	YES		
secretarial chair	2		YES		
conference table	2	30"x60"	YES		
side chair	4		YES		
computer table	2	30"x60"	YES		
file cabinet (vertical)	8	4 drawer	YES		
waste basket	2		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: A2.FO.1-2 NET AREA: 180 ASF

ROOM NAME: FACULTY OFFICE

NUMBER OF ROOMS: 2 AVERAGE NUMBER OF OCCUPANTS: 1

LOCATION: In office suite comprising rooms:

A2.AO.1 Director Office
A2.AO.2 Clerical/Reception Area
A2.FO.1-2 Faculty Office
A2.RO.1-3 Research Assistant Office
A2.OO.1-2 Post-Doc/Visitor Office

Near to:

A2.RL.1-4 Research Laboratory
A2.RL.5-10 Research Laboratory

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

open shelving: 200 ln ft

FINISHES, FEATURES

room height clear: 8'
floor: carpet
walls: painted gypsum board
door: single
window covering: blinds
ceiling: dropped, finished
base: resilient vinyl
white board: 4 ln ft
security: lockable door
telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
double pedestal desk	1	30"x60"	YES		
desk chair	1		YES		
conference table	1	30"x60"	YES		
side chair	2		YES		
computer table	1	30"x60"	YES		
computer chair (adjustable)	1		YES		
file cabinet (vertical)	4	4 drawer	YES		
waste basket	1		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: A2.RO.1-3 NET AREA: 150 ASF

ROOM NAME: RESEARCH ASSISTANT OFFICE

NUMBER OF ROOMS: 3 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: In office suite comprising rooms:

A2.AO.1 Director Office
A2.AO.2 Clerical/Reception Area
A2.FO.1-2 Faculty Office
A2.RO.1-3 Research Assistant Office
A2.OO.1-2 Post-Doc/Visitor Office

Near to:

A2.RL.1-4 Research Laboratory
A2.RL.5-10 Research Laboratory

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

open shelving: 60 ln ft

FINISHES, FEATURES

room height clear: 8'	ceiling: dropped, finished
floor: carpet	base: resilient vinyl
walls: painted gypsum board	white board: 4 ln ft
door: single	security: lockable door
window covering: blinds	telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
double pedestal desk	2	30"x60"	YES		
desk chair	2		YES		
side chair	2		YES		
computer table	2	30"x60"	YES		
computer chair (adjustable)	2		YES		
file cabinet (vertical)	2	2 drawer	YES		
waste basket	2		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: A2.OO.1-2 NET AREA: 150 ASF

ROOM NAME: POST-DOC/VISITOR OFFICE

NUMBER OF ROOMS: 2 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: In office suite comprising rooms:

A2.AO.1 Director Office
A2.AO.2 Clerical/Reception Area
A2.FO.1-2 Faculty Office
A2.RO.1-3 Research Assistant Office
A2.OO.1-2 Post-Doc/Visitor Office

Near to:

A2.RL.1-4 Research Laboratory
A2.RL.5-10 Research Laboratory

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

open shelving: 60 ln ft

FINISHES, FEATURES

room height clear: 8'
floor: carpet
walls: painted gypsum board
door: single
window covering: blinds
ceiling: dropped, finished
base: resilient vinyl
white board: 4 ln ft
security: lockable door
telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
double pedestal desk	2	30"x60"	YES		
desk chair	2		YES		
side chair	2		YES		
computer table	2	30"x60"	YES		
computer chair (adjustable)	2		YES		
file cabinet (vertical)	2	2 drawer	YES		
waste basket	2		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: A2.RL.1-4 NET AREA: 280 ASF

ROOM NAME: RESEARCH LABORATORY

NUMBER OF ROOMS: 4 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: Located with:

A2.RL.5-10 Research Laboratory

Near to: Advanced Technology II Office Suite

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: 2 outlets, chase wall
208 volt three phase: 1 outlet, chase wall
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 12 ln ft
built-in wall cabinets: 12 ln ft

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	2	36" X 96"	YES		
lab cart	1		YES		
lab stool	2		YES		
computer table	1	30" X 60"	YES		
computer chair (adjustable)	2		YES		

FACULTY CONTACT: P. Zetterberg

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: A2.RL.5-10 NET AREA: 560 ASF

ROOM NAME: RESEARCH LABORATORY

NUMBER OF ROOMS: 6 AVERAGE NUMBER OF OCCUPANTS: 4

LOCATION: Located with:

A2.RL.1-4 Research Laboratory

Near to: Advanced Technology II Office Suite

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: 2 outlets, chase wall
208 volt three phase: 1 outlet, chase wall
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
emergency shower/eye wash near fume hood
communications: voice and data
lighting: fluorescent
climate control
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 12 ln ft
built-in wall cabinets: 12 ln ft
4' fume hood with sink, acid drain, CW, HW, N, NG, comp air, vacuum, and cabinet beneath for acids and flammables

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	4	36" X 96"	YES		
lab cart	1		YES		
lab stool	4		YES		
computer table	1	30" X 60"	YES		
computer chair (adjustable)	2		YES		

FACULTY CONTACT: P. Zetterberg

Advanced Technology Laboratories III

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: A3.AO.1 NET AREA: 180 ASF

ROOM NAME: DIRECTOR OFFICE

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 1

LOCATION: In office suite comprising rooms:

A3.AO.1 Director Office
A3.AO.2 Clerical/Reception Area
A3.FO.1-2 Faculty Office
A3.RO.1-3 Research Assistant Office
A3.OO.1-2 Post-Doc/Visitor Office

Adjacent to Clerical/Reception Area.

Near to:

A3.RL.1-4 Research Laboratory
A3.RL.5-10 Research Laboratory

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

open shelving: 200 ln ft

FINISHES, FEATURES

room height clear: 8'	ceiling: dropped, finished
floor: carpet	base: resilient vinyl
walls: painted gypsum board	white board: 4 ln ft
door: single	security: lockable door
window covering: blinds	telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
double pedestal desk	1	30"x60"	YES		
desk chair	1		YES		
conference table	1	30"x60"	YES		
side chair	2		YES		
computer table	1	30"x60"	YES		
computer chair (adjustable)	1		YES		
file cabinet (vertical)	4	4 drawer	YES		
waste basket	1		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: A3.AO.2 NET AREA: 300 ASF

ROOM NAME: CLERICAL/RECEPTION

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 1

LOCATION: In office suite comprising rooms:

A3.AO.1 Director Office
A3.AO.2 Clerical/Reception Area
A3.FO.1-2 Faculty Office
A3.RO.1-3 Research Assistant Office
A3.OO.1-2 Post-Doc/Visitor Office

Adjacent to Director's Office.

Near to:

A3.RL.1-4 Research Laboratory
A3.RL.5-10 Research Laboratory

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

open shelving: 160 ln ft

FINISHES, FEATURES

room height clear: 8'	ceiling: dropped, finished
floor: carpet	base: resilient vinyl
walls: painted gypsum board	white board: 4 ln ft
door: single	security: lockable door
window covering: blinds	telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
double pedestal desk with return	2	30"x60"	YES		
secretarial chair	2		YES		
conference table	2	30"x60"	YES		
side chair	4		YES		
computer table	2	30"x60"	YES		
file cabinet (vertical)	8	4 drawer	YES		
waste basket	2		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: A3.FO.1-2 NET AREA: 180 ASF

ROOM NAME: FACULTY OFFICE

NUMBER OF ROOMS: 2 AVERAGE NUMBER OF OCCUPANTS: 1

LOCATION: In office suite comprising rooms:

A3.AO.1 Director Office
A3.AO.2 Clerical/Reception Area
A3.FO.1-2 Faculty Office
A3.RO.1-3 Research Assistant Office
A3.OO.1-2 Post-Doc/Visitor Office

Near to:

A3.RL.1-4 Research Laboratory
A3.RL.5-10 Research Laboratory

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

open shelving: 200 ln ft

FINISHES, FEATURES

room height clear: 8'	ceiling: dropped, finished
floor: carpet	base: resilient vinyl
walls: painted gypsum board	white board: 4 ln ft
door: single	security: lockable door
window covering: blinds	telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
double pedestal desk	1	30"x60"	YES		
desk chair	1		YES		
conference table	1	30"x60"	YES		
side chair	2		YES		
computer table	1	30"x60"	YES		
computer chair (adjustable)	1		YES		
file cabinet (vertical)	4	4 drawer	YES		
waste basket	1		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: A3.RO.1-3 NET AREA: 150 ASF

ROOM NAME: RESEARCH ASSISTANT OFFICE

NUMBER OF ROOMS: 3 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: In office suite comprising rooms:

A3.AO.1 Director Office
A3.AO.2 Clerical/Reception Area
A3.FO.1-2 Faculty Office
A3.RO.1-3 Research Assistant Office
A3.OO.1-2 Post-Doc/Visitor Office

Near to:

A3.RL.1-4 Research Laboratory
A3.RL.5-10 Research Laboratory

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

open shelving: 60 ln ft

FINISHES, FEATURES

room height clear: 8'	ceiling: dropped, finished
floor: carpet	base: resilient vinyl
walls: painted gypsum board	white board: 4 ln ft
door: single	security: lockable door
window covering: blinds	telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
double pedestal desk	2	30"x60"	YES		
desk chair	2		YES		
side chair	2		YES		
computer table	2	30"x60"	YES		
computer chair (adjustable)	2		YES		
file cabinet (vertical)	2	2 drawer	YES		
waste basket	2		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: A3.00.1-2 NET AREA: 150 ASF

ROOM NAME: POST-DOC/VISITOR OFFICE

NUMBER OF ROOMS: 2 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: In office suite comprising rooms:

A3.A0.1 Director Office
A3.A0.2 Clerical/Reception Area
A3.F0.1-2 Faculty Office
A3.R0.1-3 Research Assistant Office
A3.00.1-2 Post-Doc/Visitor Office

Near to:

A3.RL.1-4 Research Laboratory
A3.RL.5-10 Research Laboratory

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

open shelving: 60 ln ft

FINISHES, FEATURES

room height clear: 8'
floor: carpet
walls: painted gypsum board
door: single
window covering: blinds
ceiling: dropped, finished
base: resilient vinyl
white board: 4 ln ft
security: lockable door
telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
double pedestal desk	2	30"x60"	YES		
desk chair	2		YES		
side chair	2		YES		
computer table	2	30"x60"	YES		
computer chair (adjustable)	2		YES		
file cabinet (vertical)	2	2 drawer	YES		
waste basket	2		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: A3.RL.1-4 NET AREA: 280 ASF

ROOM NAME: RESEARCH LABORATORY

NUMBER OF ROOMS: 4 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: Located with:

A3.RL.5-10 Research Laboratory

Near to: Advanced Technology III Office Suite

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: 2 outlets, chase wall
208 volt three phase: 1 outlet, chase wall
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 12 ln ft
built-in wall cabinets: 12 ln ft

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	2	36" X 96"	YES		
lab cart	1		YES		
lab stool	2		YES		
computer table	1	30" X 60"	YES		
computer chair (adjustable)	2		YES		

FACULTY CONTACT: P. Zetterberg

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: A3.RL.5-10 NET AREA: 560 ASF

ROOM NAME: RESEARCH LABORATORY

NUMBER OF ROOMS: 6 AVERAGE NUMBER OF OCCUPANTS: 4

LOCATION: Located with:

A3.RL.1-4 Research Laboratory

Near to: Advanced Technology III Office Suite

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: 2 outlets, chase wall
208 volt three phase: 1 outlet, chase wall
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
emergency shower/eye wash near fume hood
communications: voice and data
lighting: fluorescent
climate control
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 12 ln ft
built-in wall cabinets: 12 ln ft
4' fume hood with sink, acid drain, CW, HW, N, NG, comp air, vacuum, and cabinet beneath for acids and flammables

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	4	36" X 96"	YES		
lab cart	1		YES		
lab stool	4		YES		
computer table	1	30" X 60"	YES		
computer chair (adjustable)	2		YES		

FACULTY CONTACT: P. Zetterberg

Common Facilities

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: CI.00.1-8 NET AREA: 150 ASF

ROOM NAME: COMMON TECHNICAL STAFF OFFICE

NUMBER OF ROOMS: 8 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: Near to the common instrumentation laboratories (Group M).

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

open shelving: 60 ln ft

FINISHES, FEATURES

room height clear: 8'	ceiling: dropped, finished
floor: carpet	base: resilient vinyl
walls: painted gypsum board	white board: 4 ln ft
door: single	security: lockable door
window covering: blinds	telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
double pedestal desk	2	30"x60"	YES		
desk chair	2		YES		
side chair	2		YES		
computer table	2	30"x60"	YES		
computer chair (adjustable)	2		YES		
file cabinet (vertical)	2	2 drawer	YES		
waste basket	2		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: CI.00.9-20 NET AREA: 150 ASF

ROOM NAME: COMMON VISITOR OFFICE

NUMBER OF ROOMS: 12 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: These offices should be located as a block. They may be located anywhere in the building. A preferred location would be in the office portion(s) of the office/laboratory module(s) for the computer laboratories (Group N).

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

open shelving: 60 ln ft

FINISHES, FEATURES

room height clear: 8'	ceiling: dropped, finished
floor: carpet	base: resilient vinyl
walls: painted gypsum board	white board: 4 ln ft
door: single	security: lockable door
window covering: blinds	telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
double pedestal desk	2	30"x60"	YES		
desk chair	2		YES		
side chair	2		YES		
computer table	2	30"x60"	YES		
computer chair (adjustable)	2		YES		
file cabinet (vertical)	2	2 drawer	YES		
waste basket	2		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: CI.SS.1-2 NET AREA: 560 ASF

ROOM NAME: COMPUTER MACHINE ROOM

NUMBER OF ROOMS: 2 AVERAGE NUMBER OF OCCUPANTS: 4

LOCATION: With other computer laboratories in Group N.

SERVICES

electrical: 110 volt single phase: plug mold, bench height
communications: voice and data
lighting: fluorescent (indirect)
climate control

CASEWORK, HOODS, FIXTURES

FINISHES, FEATURES

room height clear: 12'	ceiling: dropped, finished
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 4 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
computer table	6	30" X 60"	YES		
computer chair (adjustable)	6		YES		

FACULTY CONTACT: P. Zetterberg

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: CI.SS.3-6 NET AREA: 280 ASF

ROOM NAME: COMMON INSTRUMENTATION SHOP/TECHNICAL SERVICE

NUMBER OF ROOMS: 4 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: Near to loading dock.

SERVICES

electrical: 110 volt single phase: plug mold, bench height
220 volt single phase: 2 outlets, chase wall
208 volt three phase: 1 outlet, chase wall
CW and HW at base cabinet with sink
N, NG, comp air, vacuum, deionized water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
sanitary sewer: acid resistant

CASEWORK, HOODS, FIXTURES

built-in base cabinets: 12 ln ft
built-in wall cabinets: 12 ln ft

FINISHES, FEATURES

room height clear: 12'	ceiling: open to floor above
floor: vinyl composition tile	base: resilient vinyl
walls: painted gypsum board	floor loading: 125 psf
door: 36" wide with 24" fixed leaf	security: lockable door
white board: 8 ln ft	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lab bench	4	36" X 96"	YES		
lab cart	1		YES		
lab stool	4		YES		
computer table	1	30" X 60"	YES		
computer chair (adjustable)	2		YES		

FACULTY CONTACT: P. Zetterberg

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: CI.SS.7 NET AREA: 280 ASF

ROOM NAME: RECEIVING ROOM

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: Adjacent to loading dock.

SERVICES

electrical: 110 volt single phase: plug mold, bench height
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, HOODS, FIXTURES

FINISHES, FEATURES

room height clear: 12' ceiling: open to floor above
floor: vinyl composition tile base: resilient vinyl
walls: painted gypsum board floor loading: 125 psf
door: 36" wide with 24" fixed leaf security: lockable door
wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
computer table	6	30" X 60"	YES		
computer chair (adjustable)	6		YES		

FACULTY CONTACT: P. Zetterberg

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: CI.SS.8 NET AREA: 960 ASF

ROOM NAME: FIELD STAGING LABORATORY (GARAGE)

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 4

LOCATION: Adjacent to loading dock.

SERVICES

electrical: 110 volt single phase: plug mold, bench height
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, HOODS, FIXTURES

FINISHES, FEATURES

room height clear: 12'
ceiling: open to floor above
floor: sealed concrete
base: resilient vinyl
walls: painted gypsum board
floor loading: 125 psf
door: 36" wide with 24" fixed leaf
security: lockable door
double garage
wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS

FACULTY CONTACT: G. B. Morey, J. Stout

Center for the Development of Technological Leadership

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: TL.AO.1 NET AREA: 180 ASF

ROOM NAME: DIRECTOR OFFICE

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 1

LOCATION: In the Center for the Development of Technological Leadership administrative office suite with the following other rooms:

TL.AO.2 Administrator Office
TL.AO.3 Clerical/Reception Area
TL.CS.1 Commons

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

open shelving: 200 ln ft

FINISHES, FEATURES

room height clear: 8'
floor: carpet
walls: painted gypsum board
door: single
window covering: blinds
ceiling: dropped, finished
base: resilient vinyl
white board: 4 ln ft
security: lockable door
telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
double pedestal desk	1	30"x60"	YES		
desk chair	1		YES		
conference table	1	48"x96"	YES		
side chair	8		YES		
computer table	1	30"x60"	YES		
computer chair (adjustable)	1		YES		
waste basket	1		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: TL.AO.2 NET AREA: 150 ASF

ROOM NAME: ADMINISTRATOR OFFICE

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 1

LOCATION: In the Center for the Development of Technological Leadership administrative office suite with the following other rooms:

TL.AO.1 Director Office
TL.AO.3 Clerical/Reception Area
TL.CS.1 Commons

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

open shelving: 120 ln ft

FINISHES, FEATURES

room height clear: 8'	ceiling: dropped, finished
floor: carpet	base: resilient vinyl
walls: painted gypsum board	white board: 4 ln ft
door: single	security: lockable door
window covering: blinds	telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
double pedestal desk	1	30"x60"	YES		
desk chair	1		YES		
conference table	1	36"x60"	YES		
side chair	4		YES		
computer table	1	30"x60"	YES		
computer chair (adjustable)	1		YES		
file cabinet (vertical)	4	4 drawer	YES		
waste basket	1		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: TL.AO.3 NET AREA: 300 ASF

ROOM NAME: CLERICAL/RECEPTION AREA

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: In the Center for the Development of Technological Leadership administrative office suite with the following other rooms:

TL.AO.1 Director Office
TL.AO.2 Administrator Office
TL.CS.1 Commons

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

open shelving: 160 ln ft

FINISHES, FEATURES

room height clear: 8'
floor: carpet
walls: painted gypsum board
door: single
window covering: blinds
ceiling: dropped, finished
base: resilient vinyl
white board: 4 ln ft
security: lockable door
telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
single pedestal desk with typing return	2	30"x60"	YES		
secretarial chair	2		YES		
computer table	2	30"x60"	YES		
waste basket	2		YES		
guest chair	4		YES		
occasional table	1	30"x30"	YES		
small magazine rack	1		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: TL.FO.1-4 NET AREA: 180 ASF

ROOM NAME: FACULTY OFFICE

NUMBER OF ROOMS: 4 AVERAGE NUMBER OF OCCUPANTS: 1

LOCATION: With the following other offices:

TL.RO.1-5 Research Assistant Office
TL.OO.1-3 Other Office

Near to the CDTL administrative office suite.

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

open shelving: 200 ln ft

FINISHES, FEATURES

room height clear: 8'
floor: carpet
walls: painted gypsum board
door: single
window covering: blinds
ceiling: dropped, finished
base: resilient vinyl
white board: 4 ln ft
security: lockable door
telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
double pedestal desk	1	30"x60"	YES		
desk chair	1		YES		
conference table	1	30"x60"	YES		
side chair	2		YES		
computer table	1	30"x60"	YES		
computer chair (adjustable)	1		YES		
file cabinet (vertical)	4	4 drawer	YES		
waste basket	1		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: TL.RO.1-5 NET AREA: 150 ASF

ROOM NAME: RESEARCH ASSISTANT OFFICE

NUMBER OF ROOMS: 5 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: With the following other offices:

TL.FO.1-4 Faculty Office
TL.OO.1-3 Other Office

Near to the CDTL administrative office suite.

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

open shelving: 60 ln ft

FINISHES, FEATURES

room height clear: 8'	ceiling: dropped, finished
floor: carpet	base: resilient vinyl
walls: painted gypsum board	white board: 4 ln ft
door: single	security: lockable door
window covering: blinds	telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
double pedestal desk	2	30"x60"	YES		
desk chair	2		YES		
side chair	2		YES		
computer table	2	30"x60"	YES		
computer chair (adjustable)	2		YES		
file cabinet (vertical)	2	2 drawer	YES		
waste basket	2		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: TL.OO.1-3 NET AREA: 150 ASF

ROOM NAME: OTHER OFFICE

NUMBER OF ROOMS: 3 AVERAGE NUMBER OF OCCUPANTS: 2

LOCATION: With the following other offices:

TL.FO.1-4 Faculty Office
TL.RO.1-5 Research Assistant Office

Near to the CDTL administrative office suite.

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

open shelving: 60 ln ft

FINISHES, FEATURES

room height clear: 8'	ceiling: dropped, finished
floor: carpet	base: resilient vinyl
walls: painted gypsum board	white board: 4 ln ft
door: single	security: lockable door
window covering: blinds	telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
double pedestal desk	2	30"x60"	YES		
desk chair	2		YES		
side chair	2		YES		
computer table	2	30"x60"	YES		
computer chair (adjustable)	2		YES		
file cabinet (vertical)	2	2 drawer	YES		
waste basket	2		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: TL.CS. 1 NET AREA: 300 ASF

ROOM NAME: COMMONS

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 6

LOCATION: In the Center for the Development of Technological Leadership administrative office suite with the following other rooms:

TL.AO.1 Director Office
TL.AO.2 Administrator Office
TL.AO.3 Clerical/Reception Area

SERVICES

electrical: 110 volt single phase
hot and cold water at base cabinet
communications: voice and data
lighting: fluorescent
climate control
ventilation fan

CASEWORK, FIXTURES

built-in base cabinets: 6 ln ft
built-in wall cabinets: 6 ln ft

FINISHES, FEATURES

room height clear: 8'	ceiling: dropped, finished
floor: carpet	base: resilient vinyl
walls: painted gypsum board	white board: 4 ln ft
door: single	security: lockable door
window covering: blinds	telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lunch table	1	48"x48"	YES		
side chair	6		YES		
refrigerator	1		YES		
microwave	1		YES		
waste basket	1		YES		

IT Dean's Office

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: IT.AO.1 NET AREA: 250 ASF

ROOM NAME: DEAN OFFICE

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 1

LOCATION: In the Institute of Technology Dean's Office suite with the following rooms:

IT.AO.2-4 Associate Dean Office
IT.AO.5 Director, External Affairs
IT.AO.6-8 Associate To The Dean Office
IT.AO.9-12 Secretarial Office
IT.AO.13 Clerical/Reception Area, Dean
IT.AO.14 Clerical/Reception Area, External Affairs
IT.AO.15 Workroom, File Storage
IT.AO.16 Kitchen, Lounge
IT.AO.17 Conference Room

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

built-in base cabinets: 12 ln ft
open shelving: 200 ln ft

FINISHES, FEATURES

room height clear: 8'	ceiling: dropped, finished
floor: carpet	base: resilient vinyl
walls: painted gypsum board	white board: 4 ln ft
door: single	security: lockable door
window covering: blinds	telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
double pedestal desk	1	30"x60"	YES		
desk chair	1		YES		
conference table	1	48"x96"	YES		
side chair	8		YES		
computer table	1	30"x60"	YES		
computer chair (adjustable)	1		YES		
waste basket	1		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: IT.AO.2-4 NET AREA: 240 ASF

ROOM NAME: ASSOCIATE DEAN OFFICE

NUMBER OF ROOMS: 3 AVERAGE NUMBER OF OCCUPANTS: 1

LOCATION: In the Institute of Technology Dean's Office suite with the following rooms:

IT.AO.1 Dean Office
IT.AO.5 Director, External Affairs
IT.AO.6-8 Associate To The Dean Office
IT.AO.9-12 Secretarial Office
IT.AO.13 Clerical/Reception Area, Dean
IT.AO.14 Clerical/Reception Area, External Affairs
IT.AO.15 Workroom, File Storage
IT.AO.16 Kitchen, Lounge
IT.AO.17 Conference Room

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

built-in base cabinets: 12 ln ft
open shelving: 200 ln ft

FINISHES, FEATURES

room height clear: 8'	ceiling: dropped, finished
floor: carpet	base: resilient vinyl
walls: painted gypsum board	white board: 4 ln ft
door: single	security: lockable door
window covering: blinds	telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
double pedestal desk	1	30"x60"	YES		
desk chair	1		YES		
conference table	1	36"x60"	YES		
side chair	4		YES		
computer table	1	30"x60"	YES		
computer chair (adjustable)	1		YES		
file cabinet (vertical)	4	4 drawer	YES		
waste basket	1		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: IT.AO.5 NET AREA: 240 ASF

ROOM NAME: DIRECTOR, EXTERNAL AFFAIRS

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 1

LOCATION: In the Institute of Technology Dean's Office suite with the following rooms:

IT.AO.1 Dean Office
IT.AO.2-4 Associate Dean Office
IT.AO.6-8 Associate To The Dean Office
IT.AO.9-12 Secretarial Office
IT.AO.13 Clerical/Reception Area, Dean
IT.AO.14 Clerical/Reception Area, External Affairs
IT.AO.15 Workroom, File Storage
IT.AO.16 Kitchen, Lounge
IT.AO.17 Conference Room

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

built-in base cabinets: 12 ln ft
open shelving: 200 ln ft

FINISHES, FEATURES

room height clear: 8'	ceiling: dropped, finished
floor: carpet	base: resilient vinyl
walls: painted gypsum board	white board: 4 ln ft
door: single	security: lockable door
window covering: blinds	telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
double pedestal desk	1	30"x60"	YES		
desk chair	1		YES		
conference table	1	36"x60"	YES		
side chair	4		YES		
computer table	1	30"x60"	YES		
computer chair (adjustable)	1		YES		
file cabinet (vertical)	4	4 drawer	YES		
waste basket	1		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: IT.AO.6-8 NET AREA: 150 ASF

ROOM NAME: ASSOCIATE TO THE DEAN OFFICE

NUMBER OF ROOMS: 3 AVERAGE NUMBER OF OCCUPANTS: 1

LOCATION: In the Institute of Technology Dean's Office suite with the following rooms:

IT.AO.1 Dean Office
IT.AO.2-4 Associate Dean Office
IT.AO.5 Director, External Affairs
IT.AO.9-12 Secretarial Office
IT.AO.13 Clerical/Reception Area, Dean
IT.AO.14 Clerical/Reception Area, External Affairs
IT.AO.15 Workroom, File Storage
IT.AO.16 Kitchen, Lounge
IT.AO.17 Conference Room

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

open shelving: 120 ln ft

FINISHES, FEATURES

room height clear: 8'	ceiling: dropped, finished
floor: carpet	base: resilient vinyl
walls: painted gypsum board	white board: 4 ln ft
door: single	security: lockable door
window covering: blinds	telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
double pedestal desk	1	30"x60"			
desk chair	1				
conference table	1	36"x60"			
side chair	2				
computer table	1	30"x60"			
computer chair (adjustable)	1				
file cabinet (vertical)	4	4 drawer			
waste basket	1				

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: IT.AO.9-12 NET AREA: 150 ASF

ROOM NAME: SECRETARIAL OFFICE

NUMBER OF ROOMS: 4 AVERAGE NUMBER OF OCCUPANTS: 1

LOCATION: In the Institute of Technology Dean's Office suite with the following rooms:

IT.AO.1 Dean Office
IT.AO.2-4 Associate Dean Office
IT.AO.5 Director, External Affairs
IT.AO.6-8 Associate To The Dean Office
IT.AO.13 Clerical/Reception Area, Dean
IT.AO.14 Clerical/Reception Area, External Affairs
IT.AO.15 Workroom, File Storage
IT.AO.16 Kitchen, Lounge
IT.AO.17 Conference Room

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

open shelving: 60 ln ft

FINISHES, FEATURES

room height clear: 8'
floor: carpet
walls: painted gypsum board
door: single
window covering: blinds
ceiling: dropped, finished
base: resilient vinyl
white board: 4 ln ft
security: lockable door
telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
single pedestal desk with typing return	1	30"x60"	YES		
secretarial chair	1		YES		
side chair	1		YES		
computer table	1	30"x60"	YES		
file cabinet (vertical)	4	4 drawer			
waste basket	1		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: IT.AO.13 NET AREA: 300 ASF

ROOM NAME: RECEPTION, DEAN

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 3

LOCATION: In the Institute of Technology Dean's Office suite with the following rooms:

IT.AO.1 Dean Office
IT.AO.2-4 Associate Dean Office
IT.AO.5 Director, External Affairs
IT.AO.6-8 Associate To The Dean Office
IT.AO.9-12 Secretarial Office
IT.AO.14 Clerical/Reception Area, External Affairs
IT.AO.15 Workroom, File Storage
IT.AO.16 Kitchen, Lounge
IT.AO.17 Conference Room

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

open shelving: 240 ln ft

FINISHES, FEATURES

room height clear: 8'
floor: carpet
walls: painted gypsum board
door: single
window covering: blinds
ceiling: dropped, finished
base: resilient vinyl
white board: 4 ln ft
security: lockable door
telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
single pedestal desk with typing return	3	30"x60"	YES		
secretarial chair	3		YES		
computer table	3	30"x60"	YES		
waste basket	3		YES		
guest chair	4		YES		
occasional table	1	30"x30"	YES		
small magazine rack	1		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: IT.AO.14 NET AREA: 300 ASF

ROOM NAME: RECEPTION, EXTERNAL AFFAIRS

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 3

LOCATION: In the Institute of Technology Dean's Office suite with the following rooms:

IT.AO.1 Dean Office
IT.AO.2-4 Associate Dean Office
IT.AO.5 Director, External Affairs
IT.AO.6-8 Associate To The Dean Office
IT.AO.9-12 Secretarial Office
IT.AO.13 Clerical/Reception Area, Dean
IT.AO.15 Workroom, File Storage
IT.AO.16 Kitchen, Lounge
IT.AO.17 Conference Room

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

open shelving: 240 ln ft

FINISHES, FEATURES

room height clear: 8'
floor: carpet
walls: painted gypsum board
door: single
window covering: blinds
ceiling: dropped, finished
base: resilient vinyl
white board: 4 ln ft
security: lockable door
telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
single pedestal desk with typing return	3	30"x60"	YES		
secretarial chair	3		YES		
computer table	3	30"x60"	YES		
waste basket	3		YES		
guest chair	4		YES		
occasional table	1	30"x30"	YES		
small magazine rack	1		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: IT.AO.15 NET AREA: 420 ASF

ROOM NAME: WORKROOM, FILE STORAGE

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 1

LOCATION: In the Institute of Technology Dean's Office suite with the following rooms:

IT.AO.1 Dean Office
IT.AO.2-4 Associate Dean Office
IT.AO.5 Director, External Affairs
IT.AO.6-8 Associate To The Dean Office
IT.AO.9-12 Secretarial Office
IT.AO.13 Clerical/Reception Area, Dean
IT.AO.14 Clerical/Reception Area, External Affairs
IT.AO.16 Kitchen, Lounge
IT.AO.17 Conference Room

SERVICES

electrical: 110 volt single phase
208 single phase for copy machine
communications: voice and data
lighting: fluorescent
climate control
ventilation for copy machine

CASEWORK, FIXTURES

FINISHES, FEATURES

room height clear: 8'	ceiling: dropped, finished
floor: carpet	base: resilient vinyl
walls: painted gypsum board	white board: 4 ln ft
door: single	security: lockable door
window covering: blinds	telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
file cabinet (vertical)	20	4 drawer	YES		
storage cabinets	6	36"x72"	YES		
work table	2	30"x60"	YES		
waste basket	1		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: IT.AO.16 NET AREA: 150 ASF

ROOM NAME: KITCHEN, LOUNGE

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 1

LOCATION: In the Institute of Technology Dean's Office suite with the following rooms:

IT.AO.1 Dean Office
IT.AO.2-4 Associate Dean Office
IT.AO.5 Director, External Affairs
IT.AO.6-8 Associate To The Dean Office
IT.AO.9-12 Secretarial Office
IT.AO.13 Clerical/Reception Area, Dean
IT.AO.14 Clerical/Reception Area, External Affairs
IT.AO.15 Workroom, File Storage
IT.AO.17 Conference Room

SERVICES

electrical: 110 volt single phase
hot and cold water at base cabinet
lighting: fluorescent
climate control
ventilation fan

CASEWORK, FIXTURES

built-in base cabinets: 6 ln ft
built-in wall cabinets: 6 ln ft

FINISHES, FEATURES

room height clear: 8'	ceiling: dropped, finished
floor: carpet	base: resilient vinyl
walls: painted gypsum board	white board: 4 ln ft
door: single	security: lockable door
window covering: blinds	telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
lunch table	1	48"x48"	YES		
side chair	4		YES		
refrigerator	1		YES		
microwave	1		YES		
waste basket	1		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: IT.AO.17 NET AREA: 600 ASF

ROOM NAME: CONFERENCE ROOM

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 30

LOCATION: In the Institute of Technology Dean's Office suite with the following rooms:

IT.AO.1 Dean Office
IT.AO.2-4 Associate Dean Office
IT.AO.5 Director, External Affairs
IT.AO.6-8 Associate To The Dean Office
IT.AO.9-12 Secretarial Office
IT.AO.13 Clerical/Reception Area, Dean
IT.AO.14 Clerical/Reception Area, External Affairs
IT.AO.15 Workroom, File Storage
IT.AO.16 Kitchen, Lounge

SERVICES

electrical: 110 volt single phase
hot and cold water at base cabinet with sink
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

built-in base cabinets: 12 ln ft
built-in wall cabinets: 12 ln ft
wall mounted projection screen (6' wide)

FINISHES, FEATURES

room height clear: 8'	ceiling: dropped, finished
floor: carpet	base: resilient vinyl
walls: painted gypsum board	white board: 4 ln ft
door: single	security: lockable door
window covering: blinds	telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
conference table	1	6'x18'	YES		
side chair	30		YES		
waste basket	2		YES		

Classrooms and Student Commons

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: CL.CL.1 NET AREA: 560 ASF

ROOM NAME: 25 SEAT CLASSROOM

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 25

LOCATION: Locate with the following other classrooms:

CL.CL.2-3 40 Seat Classroom
CL.CL.4 120 Seat Auditorium Classroom
CL.CL.5 Projection Booth For 120 Seat Auditorium Classroom
CL.CL.6 175 Seat Auditorium Classroom
CL.CL.7 Projection Booth for 175 Seat Auditorium Classroom
CL.CL.8 18 Seat Computer Classroom
CL.CL.9-10 20 Seat Seminar Room

SERVICES

electrical: 110 volt single phase at instructor's desk and on all walls
communications: voice and data at instructor's desk
lighting: fluorescent in seating area
incadescent lighting (dimmable) in seating area
spotlights on instructor's desk and white board
climate control

CASEWORK, FIXTURES

strip tables with attached seating for 25
2 8' projection screens (controllable from instructor's desk)
4' X 8' built-in instructor's desk with 110 power, voice and data communications, and controls for screen, camera, and projectors

FINISHES, FEATURES

room height clear: 12'	ceiling: dropped, finished
floor: carpet	base: resilient vinyl
walls: painted gypsum board	white board: 20 ln ft
door: single	security: lockable door
window covering: blinds	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
audio-visual cart	1		YES		
35 mm slide projector	1		YES		
large screen projector	1		YES		
computer chair (adjustable)	1		YES		
television monitor in instructor's desk	1		YES		
instructor controllable overhead camera	1		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: CL.CL.2-3 NET AREA: 560 ASF

ROOM NAME: 40 SEAT CLASSROOM

NUMBER OF ROOMS: 2 AVERAGE NUMBER OF OCCUPANTS: 40

LOCATION: Locate with the following other classrooms:

CL.CL.1 25 Seat Classroom
CL.CL.4 120 Seat Auditorium Classroom
CL.CL.5 Projection Booth For 120 Seat Auditorium Classroom
CL.CL.6 175 Seat Auditorium Classroom
CL.CL.7 Projection Booth for 175 Seat Auditorium Classroom
CL.CL.8 18 Seat Computer Classroom
CL.CL.9-10 20 Seat Seminar Room

SERVICES

electrical: 110 volt single phase at instructor's desk and on all walls
communications: voice and data at instructor's desk
lighting: fluorescent in seating area
incadescent lighting (dimmable) in seating area
spotlights on instructor's desk and white board
climate control

CASEWORK, FIXTURES

strip tables with attached seating for 40
2 8' projection screens (controllable from instructor's desk)
4' X 8' built-in instructor's desk with 110 power, voice and data communications, and controls for screen, camera, and projectors

FINISHES, FEATURES

room height clear: 12'
floor: carpet
walls: painted gypsum board
door: single
window covering: blinds
ceiling: dropped, finished
base: resilient vinyl
white board: 20 ln ft
security: lockable door
wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
audio-visual cart	1		YES		
35 mm slide projector	1		YES		
large screen projector	1		YES		
computer chair (adjustable)	1		YES		
television monitor in instructor's desk	1		YES		
instructor controllable overhead camera	1		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: CL.CL.4 NET AREA: 1,820 ASF

ROOM NAME: 120 SEAT AUDITORIUM CLASSROOM

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 120

LOCATION: Adjacent to:

CL.CL.5 Projection Booth For 120 Seat Auditorium Classroom

Locate with the following other classrooms:

CL.CL.1 25 Seat Classroom
CL.CL.2-3 40 Seat Classroom
CL.CL.6 175 Seat Auditorium Classroom
CL.CL.7 Projection Booth for 175 Seat Auditorium Classroom
CL.CL.8 18 Seat Computer Classroom
CL.CL.9-10 20 Seat Seminar Room

SERVICES

electrical: 110 volt single phase at instructor's desk and on all walls
communications: voice and data at instructor's desk
lighting: fluorescent in seating area
incadescent lighting (dimmable) in seating area
spotlights on instructor's desk and white board
climate control

CASEWORK, FIXTURES

strip tables with attached seating for 120
2 8' projection screens (controllable from instructor's desk)
4' X 8' built-in instructor's desk with 110 power, voice and data communications, and controls for screen, camera, and projectors

FINISHES, FEATURES

room height clear: 12'
floor: carpet
walls: painted gypsum board
door: single
window covering: blinds
ceiling: dropped, finished
base: resilient vinyl
white board: 20 ln ft
security: lockable door
wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
audio-visual cart	1		YES		
35 mm slide projector	1		YES		
large screen projector	1		YES		
computer chair (adjustable)	1		YES		
television monitor in instructor's desk	1		YES		
instructor controllable overhead camera	1		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: CL.CL.5 NET AREA: 70 ASF

ROOM NAME: PROJECTION BOOTH FOR 120 SEAT AUDITORIUM CLASSROOM

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 1

LOCATION: Adjacent to: CL.CL.4 120 Seat Auditorium Classroom

Locate with the following other classrooms:

CL.CL.1 25 Seat Classroom
CL.CL.2-3 40 Seat Classroom
CL.CL.6 175 Seat Auditorium Classroom
CL.CL.7 Projection Booth for 175 Seat Auditorium Classroom
CL.CL.8 18 Seat Computer Classroom
CL.CL.9-10 20 Seat Seminar Room

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

FINISHES, FEATURES

room height clear: 8'	ceiling: dropped, finished
floor: carpet	base: resilient vinyl
walls: painted gypsum board	white board: 20 ln ft
door: single	security: lockable door
window covering: blinds	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
computer chair (adjustable)	1		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: CL.CL.6 NET AREA: 2,800 ASF

ROOM NAME: 175 SEAT AUDITORIUM CLASSROOM

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 175

LOCATION: Adjacent to:

CL.CL.7 Projection Booth for 175 Seat Auditorium Classroom

Locate with the following other classrooms:

CL.CL.1 25 Seat Classroom
CL.CL.2-3 40 Seat Classroom
CL.CL.4 120 Seat Auditorium Classroom
CL.CL.5 Projection Booth For 120 Seat Auditorium Classroom
CL.CL.8 18 Seat Computer Classroom
CL.CL.9-10 20 Seat Seminar Room

SERVICES

electrical: 110 volt single phase at instructor's desk and on all walls
communications: voice and data at instructor's desk
lighting: fluorescent in seating area
incadescent lighting (dimmable) in seating area
spotlights on instructor's desk and white board
climate control

CASEWORK, FIXTURES

175 theater seats with arm tablet
2 8' projection screens (controllable from instructor's desk)
4' X 8' built-in instructor's desk with 110 power, voice and data communications, and controls for screen, camera, and projectors

FINISHES, FEATURES

room height clear: 12'	ceiling: dropped, finished
floor: carpet	base: resilient vinyl
walls: painted gypsum board	white board: 20 ln ft
door: single	security: lockable door
window covering: blinds	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
audio-visual cart	1		YES		
35 mm slide projector	1		YES		
large screen projector	1		YES		
computer chair (adjustable)	1		YES		
television monitor in instructor's desk	1		YES		
instructor controllable overhead camera	1		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: CL.CL.7 NET AREA: 70 ASF

ROOM NAME: PROJECTION BOOTH FOR 175 SEAT AUDITORIUM CLASSROOM

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 1

LOCATION: Adjacent to: CL.CL.6 175 Seat Auditorium Classroom

Locate with the following other classrooms:

CL.CL.1 25 Seat Classroom
CL.CL.2-3 40 Seat Classroom
CL.CL.4 120 Seat Auditorium Classroom
CL.CL.5 Projection Booth For 120 Seat Auditorium Classroom
CL.CL.8 18 Seat Computer Classroom
CL.CL.9-10 20 Seat Seminar Room

SERVICES

electrical: 110 volt single phase
communications: voice and data
lighting: fluorescent
climate control

CASEWORK, FIXTURES

FINISHES, FEATURES

room height clear: 8'	ceiling: dropped, finished
floor: carpet	base: resilient vinyl
walls: painted gypsum board	white board: 20 ln ft
door: single	security: lockable door
window covering: blinds	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
computer chair (adjustable)	1		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: CL.CL.8 NET AREA: 560 ASF

ROOM NAME: 18 SEAT COMPUTER CLASSROOM

NUMBER OF ROOMS: 1 AVERAGE NUMBER OF OCCUPANTS: 18

LOCATION: Locate with the following other classrooms:

CL.CL.1 25 Seat Classroom
CL.CL.2-3 40 Seat Classroom
CL.CL.4 120 Seat Auditorium Classroom
CL.CL.5 Projection Booth For 120 Seat Auditorium Classroom
CL.CL.6 175 Seat Auditorium Classroom
CL.CL.7 Projection Booth for 175 Seat Auditorium Classroom
CL.CL.9-10 20 Seat Seminar Room

SERVICES

electrical: 110 volt single phase at instructor's desk and on all walls
communications: voice and data at instructor's desk
lighting: fluorescent in seating area
incadescent lighting (dimmable) in seating area
spotlights on instructor's desk and white board
climate control

CASEWORK, FIXTURES

strip table with seating for 18 with 110V single phase
and data communications
2 8' projection screens (controllable from instructor's desk)
4' X 8' built-in instructor's desk with 110 power, voice and data
communications, and controls for screen, camera, and projectors

FINISHES, FEATURES

room height clear: 12'	ceiling: dropped, finished
floor: carpet	base: resilient vinyl
walls: painted gypsum board	white board: 20 ln ft
door: single	security: lockable door
window covering: blinds	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
audio-visual cart	1		YES		
35 mm slide projector	1		YES		
large screen projector	1		YES		
computer chair (adjustable)	1		YES		
television monitor in instructor's desk	1		YES		
instructor controllable overhead camera	1		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: CL.CL.9-10 NET AREA: 280 ASF

ROOM NAME: 20 SEAT SEMINAR ROOM

NUMBER OF ROOMS: 2 AVERAGE NUMBER OF OCCUPANTS: 20

LOCATION: Locate with the following other classrooms:

CL.CL.1 25 Seat Classroom
CL.CL.2-3 40 Seat Classroom
CL.CL.4 120 Seat Auditorium Classroom
CL.CL.5 Projection Booth For 120 Seat Auditorium Classroom
CL.CL.6 175 Seat Auditorium Classroom
CL.CL.7 Projection Booth for 175 Seat Auditorium Classroom
CL.CL.8 18 Seat Computer Classroom

SERVICES

electrical: 110 volt single phase at instructor's desk and on all walls
communications: voice and data at instructor's desk
lighting: fluorescent, 100 fc
climate control

CASEWORK, FIXTURES

8' projection screen

FINISHES, FEATURES

room height clear: 12'	ceiling: dropped, finished
floor: carpet	base: resilient vinyl
walls: painted gypsum board	white board: 20 ln ft
door: single	security: lockable door
window covering: blinds	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
conference table	1	15' X 15'	YES		
side chairs	20		YES		

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING

ROOM CODE: CS.CS.1 NET AREA: 5,000 ASF

ROOM NAME: COMMONS AREAS

NUMBER OF ROOMS: VARIES AVERAGE NUMBER OF OCCUPANTS: 200

LOCATION: Some commons areas should be located throughout the building in highly visible areas near classrooms and other areas of heavy student traffic; other commons areas should be located so as to provide meeting places for faculty, staff, and graduate students.

SERVICES

electrical: 110 volt single phase on walls
lighting: fluorescent
climate control

CASEWORK, FIXTURES

FINISHES, FEATURES

room height clear: 12'	ceiling: dropped, finished
floor: carpet	base: resilient vinyl
walls: painted gypsum board	white board: 20 ln ft
door: single	security: lockable door
window covering: blinds	wall clock and telephone

MOVABLE EQUIPMENT:	QTY	SIZE	PURCH	EXIST	COMMENTS
study tables	40	42" X 42"	YES		
study chairs	80		YES		
lounge seating	80		YES		

Appendix B: Area Summary

EARTH SCIENCES AND MATERIALS ENGINEERING BUILDING: AREA SUMMARY

GEOLOGY AND GEOPHYSICS (46,140 ASF)		#	ROOM SIZE	TOTAL ASF
GG.AO.1	Department Head Office	1	200	200
GG.AO.2	Departmental Administrator Office	1	150	150
GG.AO.3-4	Accountant Office	2	150	300
GG.AO.5	Clerical/Reception Area	1	300	300
GG.AO.6	Conference Room	1	300	300
GG.AO.7	Staff Lounge	1	150	150
GG.AO.8	Workroom, Copy Room	1	300	300
GG.AO.9	Mail Room	1	300	300
GG.FO.1-20	Faculty Office	20	180	3,600
GG.TO.1-12	Teaching Assistant Office	12	150	1,800
GG.RO.1-26	Research Assistant Office	26	150	3,900
GG.OO.1-12	Other Office	12	150	1,800
GG.IL.1	Mineralogy Laboratory	1	840	840
GG.IL.2	Petrology Laboratory	1	840	840
GG.IL.3	Physical Geology I Laboratory	1	840	840
GG.IL.4	Physical Geology II Laboratory	1	840	840
GG.IL.5	Earth History Laboratory	1	840	840
GG.IL.6	Structural Geology Laboratory	1	840	840
GG.IL.7	Sedimentology Laboratory	1	840	840
GG.IL.8-9	Computational Laboratory	2	560	1,120
GG.RL.1	Rock Mechanics Laboratory	1	1,120	1,120
GG.RL.2	Paleomagnetism: Conventional And Superconducting Laboratory	1	560	560
GG.RL.3	Rock Magnetism: VSMS Susceptometer Laboratory	1	560	560
GG.RL.4	Rock Magnetism: Magneto-Optic Imager Laboratory	1	280	280
GG.RL.5	Rock Magnetism: Mossbauer Spectrometer Laboratory	1	280	280
GG.RL.6	Diamond Anvil Laboratory	1	560	560
GG.RL.7	Thermal Stresses Laboratory	1	560	560
GG.RL.8	Sample Preparation Laboratory	1	280	280
GG.RL.9	Field Geology Laboratory	1	280	280
GG.RL.10	Computing Laboratory	1	560	560
GG.RL.11	Petrology Laboratory	1	560	560
GG.RL.12	Rock Mineral Physics Laboratory	1	280	280
GG.RL.13	Rock Mineral Physics Laboratory (nano-indentor)	1	560	560
GG.RL.14	Rock Mineral Physics Laboratory (high temperature furnaces)	1	560	560
GG.RL.15	Rock Mineral Physics Laboratory	1	560	560
GG.RL.16	Rock Mineral Physics Laboratory	1	560	560
GG.RL.17	Hydrothermal Laboratory I	1	560	560
GG.RL.18	Hydrothermal Laboratory II	1	560	560
GG.RL.19	Analytical Geochemistry Laboratory (Wet)	1	560	560
GG.RL.20	Analytical Geochemistry: Instrumental Laboratory	1	560	560
GG.RL.21	Radiogenic Isotope Geochemistry: Mass Spectrometer Room	1	840	840
GG.RL.22	Radiogenic Isotope Geochemistry: Clean Chemistry Laboratory	1	840	840
GG.RL.23	Radiogenic Isotope Geochemistry: Support Room for Chemistry	1	280	280
GG.RL.24	Radiogenic Isotope Geochemistry: Electronics Room	1	280	280
GG.RL.25	Stable Isotopes: Mass Spectrometer Laboratory	1	280	280
GG.RL.26	Stable Isotopes: Extraction Laboratory I	1	560	560
GG.RL.27	Stable Isotopes: Extraction Laboratory II	1	560	560
GG.RL.28	Stable Isotopes: Mineral Separation Laboratory	1	280	280

GG.RL.29	Crystallography Laboratory	1	1,120	1,120
GG.RL.30	Hydrogeochemistry Laboratory I (Water Chemistry)	1	280	280
GG.RL.31	Hydrogeochemistry Laboratory II (Isotopes)	1	280	280
GG.RL.32	Hydrogeochemistry Laboratory III (Dye Tracing)	1	280	280
GG.RL.33	Hydrogeology Laboratory (Clean)	1	280	280
GG.RL.34	Hydrogeology Laboratory I	1	560	560
GG.RL.35	Hydrogeology Laboratory II	1	560	560
GG.RL.36	Structurology Laboratory I	1	840	840
GG.RL.37	Structurology Laboratory II	1	840	840
GG.RL.38	Geology and Geophysics Laboratory	1	560	560
GG.RL.39	Radiogenic Isotope Geochemistry: Rock Preparation Room	1	280	280
GG.RL.40	Basin Analysis Laboratory	1	560	560
GG.RL.41	Sedimentary Petrology Laboratory	1	840	840
GG.RL.42	Mechanics of Sediment Transport Laboratory I	1	280	280
GG.RL.43	Mechanics of Sediment Transport Laboratory II	1	280	280
GG.RL.44	Mechanics of Sediment Transport Laboratory III	1	280	280
GG.RL.45	Paleontology Laboratory	1	560	560
GG.RL.46	Hydrogeology Laboratory (Wet)	1	560	560
GG.RL.47	Glaciology Laboratory	1	560	560
GG.RL.48	Glaciology Cold Room	1	280	280
GG.CI.1	Microprobe Laboratory	1	560	560
GG.CI.2	Microprobe Preparation Laboratory	1	560	560
GG.CI.3	X-Ray Diffraction and Fluorescence Laboratory	1	560	560

LIMNOLOGICAL RESEARCH CENTER (6,890 ASF)		#	ROOM SIZE	TOTAL ASF
LR.AO.1	Secretary Office	1	150	150
LR.AO.2	Reception And Public Area	1	300	300
LR.AO.3	Conference Room	1	300	300
LR.AO.4	Workroom	1	600	600
LR.FO.1-4	Faculty Office	4	180	720
LR.RO.1-3	Research Assistant Office	3	150	450
LR.OO.1-3	Other Office	3	150	450
LR.RL.1	Refrigerated Cold Storage Room	1	560	560
LR.RL.2	Core Processing Laboratory	1	840	840
LR.RL.3	Secure Coring Equipment Storage Room	1	140	140
LR.RL.4	Sedimentary Limnology Laboratory	1	280	280
LR.RL.5	Secure Modern Limnology Equipment Storage Room	1	140	140
LR.RL.6	Pollen Preparation Laboratory	1	280	280
LR.RL.7	Microscopy Laboratory	1	280	280
LR.RL.8	Radioactive Isotope Laboratory	1	280	280
LR.RL.9	Analytical Chemical Limnology Laboratory	1	560	560
LR.RL.10	Neolimnology And Biomanipulation Laboratory	1	280	280
LR.RL.11	Neolimnology And Biomanipulation: Culture Laboratory	1	280	280

MINNESOTA GEOLOGICAL SURVEY (16,570 ASF)		#	ROOM SIZE	TOTAL ASF
GS.AO.1	Director Office	1	200	200
GS.AO.2	Associate Director Office	1	200	200
GS.AO.3	Administrator Office	1	150	150
GS.AO.4	Accountant Office	1	150	150
GS.AO.5	Clerical/Reception Area	1	300	300
GS.AO.6	Conference Room/Commons Room	1	600	600
GS.AO.7	Workroom, Copy Room	1	300	300
GS.RO.1-3	Research Assistant Office	3	150	450
GS.OO.1-25	Scientist/Technician Office	25	180	4,500

GS.RL.1	Core Study Laboratory	1	280	280
GS.RL.2	Core Storage Room	1	1,120	1,120
GS.RL.3	Cuttings Storage Room	1	1,680	1,680
GS.RL.4	Geophysics Laboratory	1	280	280
GS.RL.5	Petrographic Laboratory	1	280	280
GS.RL.6	U/Th Disequilibrium Laboratory	1	280	280
GS.RL.7	Microscopy Laboratory	1	140	140
GS.RL.8	Radioactive Source Storage Room	1	60	60
GS.RL.9	Sediment Analysis Laboratory	1	560	560
GS.RL.10	Sediment Disaggregation Laboratory	1	280	280
GS.RL.11	Rock Preparation Laboratory (Dirty)	1	560	560
GS.RL.12	Rock Preparation Laboratory (Clean)	1	280	280
GS.CI.1	X-Ray Laboratory	1	280	280
GS.SS.1	Maps And Publications Sales Room	1	2,800	2,800
GS.SS.2	Computer Operations Room	1	840	840

MATERIALS SCIENCE AND ENGINEERING (29,260 ASF)		#	ROOM SIZE	TOTAL ASF
ME.FO.1-10	Faculty Office	10	180	1,800
ME.RO.1-20	Research Assistant Office	20	150	3,000
ME.OO.1-10	Other Office	10	150	1,500
ME.RL.1-12	Research Laboratory	12	280	3,360
ME.RL.13-36	Research Laboratory	24	560	13,440
ME.RL.37-38	Computational Laboratory	2	560	1,120
ME.CI.1-6	Microscopy Laboratory	6	560	3,360
ME.CI.7-12	Microscopy Preparation Laboratory	6	280	1,680

ADVANCED TECHNOLOGY LABORATORIES I (12,310 ASF)		#	ROOM SIZE	TOTAL ASF
A1.AO.1	Director Office	1	180	180
A1.AO.2-3	Associate Director Office	2	150	300
A1.AO.4	Administrator Office	1	150	150
A1.AO.5	Accountant Office	1	150	150
A1.AO.6	Clerical/Reception Area	1	300	300
A1.AO.7	Conference Room	1	300	300
A1.RO.1-6	Research Assistant Office	6	150	900
A1.OO.1-4	Visiting Faculty Office	4	150	600
A1.OO.5-8	Scientist Office	4	150	600
A1.OO.9	Technician Office	1	150	150
A1.RL.1	Film Balance Laboratory	1	280	280
A1.RL.2	Rheometry: Stress And Fluids Laboratory	1	280	280
A1.RL.3	Photography Laboratory: Dark Room	1	280	280
A1.RL.4	Spectroscopic Ellipsometry Laboratory	1	280	280
A1.RL.5	Capillary Rheometer Laboratory	1	280	280
A1.RL.6	Infrared/Fourier Transform Spectrometer Laboratory	1	280	280
A1.RL.7	Permeability Measuring System Laboratory	1	280	280
A1.RL.8	UHV-CVD Synthesis/Characterization Laboratory	1	560	560
A1.RL.9	Vapor Deposition System Laboratory	1	560	560
A1.RL.10	Processing Laboratory: Twin Screw Extruder	1	280	280
A1.RL.11	Processing Laboratory: Pull Trusion	1	1,960	1,960
A1.CI.1	X-Ray Laboratory	1	560	560
A1.CI.2	Atomic Force Microscopy Laboratory	1	280	280
A1.CI.3	Scanning Tunneling Microscopy Laboratory	1	560	560
A1.CI.4	STM Preparation Laboratory	1	560	560
A1.CI.5	Transmission Electron Microscopy Laboratory (CM 30)	1	280	280
A1.CI.6	Transmission Electron Microscopy Laboratory (CM 20)	1	280	280
A1.CI.7	Transmission Electron Microscopy: Preparation Room	1	280	280

A1.CI.8	Video-Enhanced Microscopy Laboratory	1	280	280
A1.SS.1	Electronics And Technical Service Workshop	1	280	280

ADVANCED TECHNOLOGY LABORATORIES II (6,070 ASF)		#	ROOM SIZE	TOTAL ASF
A2.AO.1	Director Office	1	180	180
A2.AO.2	Clerical/Reception Area	1	300	300
A2.FO.1-2	Faculty Office	2	180	360
A2.RO.1-3	Research Assistant Office	3	150	450
A2.OO.1-2	Post-Doc/Visitor Office	2	150	300
A2.RL.1-4	Research Laboratory	4	280	1,120
A2.RL.5-10	Research Laboratory	6	560	3,360

ADVANCED TECHNOLOGY LABORATORIES III (6,070 ASF)		#	ROOM SIZE	TOTAL ASF
A3.AO.1	Director Office	1	180	180
A3.AO.2	Clerical/Reception Area	1	300	300
A3.FO.1-2	Faculty Office	2	180	360
A3.RO.1-3	Research Assistant Office	3	150	450
A3.OO.1-2	Post-Doc/Visitor Office	2	150	300
A3.RL.1-4	Research Laboratory	4	280	1,120
A3.RL.5-10	Research Laboratory	6	560	3,360

COMMON FACILITIES (6,480 ASF)		#	ROOM SIZE	TOTAL ASF
CI.OO.1-8	Common Technical Staff	8	150	1,200
CI.OO.9-20	Common Visitor Office	12	150	1,800
CI.SS.1-2	Computer Machine Room	2	560	1,120
CI.SS.3-6	Common Instrumentation Shop/Technical Service	4	280	1,120
CI.SS.7	Receiving Room	1	280	280
CI.SS.8	Garage (Field Staging)	1	960	960

CENTER FOR THE DEVELOPMENT OF TECHNOLOGICAL LEADERSHIP (2,850 ASF)		#	ROOM SIZE	TOTAL ASF
TL.AO.1	Director Office	1	180	180
TL.AO.2	Administrator Office	1	150	150
TL.AO.3	Clerical/Reception Area	1	300	300
TL.FO.1-4	Faculty Office	4	180	720
TL.RO.1-5	Research Assistant Office	5	150	750
TL.OO.1-3	Other Office	3	150	450
TL.CS.1	Commons	1	300	300

IT DEAN'S OFFICE (4,030 ASF)		#	ROOM SIZE	TOTAL ASF
IT.AO.1	Dean Office	1	250	250
IT.AO.2-4	Associate Dean Office	3	240	720
IT.AO.5	Director, External Affairs	1	240	240
IT.AO.6-8	Associate To The Dean Office	3	150	450
IT.AO.9-12	Secretarial Office	4	150	600
IT.AO.13	Clerical/Reception Area, Dean	1	300	300
IT.AO.14	Clerical/Reception Area, External Affairs	1	300	300
IT.AO.15	Workroom, File Storage	1	420	420
IT.AO.16	Kitchen, Lounge	1	150	150

IT.AO.17	Conference Room	1	600	600

CLASSROOMS (7,560 ASF)		#	ROOM SIZE	TOTAL ASF
CL.CL.1	25 Seat Classroom	1	560	560
CL.CL.2-3	40 Seat Classroom	2	560	1,120
CL.CL.4	120 Seat Auditorium Classroom	1	1,820	1,820
CL.CL.5	Projection Booth For 120 Seat Auditorium Classroom .	1	70	70
CL.CL.6	175 Seat Auditorium Classroom	1	2,800	2,800
CL.CL.7	Projection Booth For 120 Seat Auditorium Classroom .	1	70	70
CL.CL.8	18 Seat Computer Classroom	1	560	560
CL.CL.9-10	20 Seat Seminar Room	2	280	560

STUDENT COMMONS (5,000 ASF)		#	ROOM SIZE	TOTAL ASF
CS.CS.	Student Commons Areas	~	varies	5,000

Appendix C: Policies and Principles for Planning, Design and Construction on the Twin Cities Campus

POLICIES AND PRINCIPLES FOR THE PLANNING, DESIGN AND CONSTRUCTION ON THE TWIN CITIES CAMPUS OF THE UNIVERSITY OF MINNESOTA

"Nature has provided one of the most beautiful sites in the Union for the establishment of a University"

INTRODUCTION

Although there have been a number of Planning studies prepared to guide the physical growth of the Twin Cities campus, they have dealt primarily with generalities when addressing the campus landscape. The purpose of this document is to reinforce the planning and design concepts described in those documents by establishing policies and principles which will bring unity and beauty to the campus environment as a whole. By organizing the many campus elements into a unified pattern, a visually coherent and attractive image can be achieved that will enable the Twin Cities campus to recapture some of the distinct character of its early years. It's our responsibility as inheritors of the site chosen by our Founding Fathers, to preserve and enhance the remaining qualities of the environment that is so vital to the mission of the University and its pursuit of excellence most recently reaffirmed in Commitment to Focus. The following Policies and Principles are intended to guide and discipline future development of the campus.

IMAGE

A very important part of any University campus is the image it portrays to the community. The University is a center for higher education, cultural activities, sports and a place where the community expects to find progressive attitudes. To accomplish the proper integration of campus development into the community, attention must be given to certain "image zones" occurring on the campus.

1. Access - The campus edges adjacent to the neighborhoods have significant image potential. It must be open enough to convey an orderly, pleasant image to the public.

2. Entrance/Exit - With large streams of traffic occurring at peak periods each day and especially during special campus events, the entrances and exits must be capable of handling these large volumes of traffic in an effective and efficient way. The entrances must be safe and readily identifiable to faculty, staff, students and visitors.

3. Approach - When faculty, staff, students and visitors arrive on the campus, it is important that they identify with the functions occurring around them. It is necessary that the "approach image" be one of direction and information.

4. Interior - The "interior image" must include spaces that are in scale with the pedestrian and allow the individual to relate in a comfortable way to the surroundings within each campus zone. This should include a central outdoor gathering space, a hub of activities such as the St. Paul Student Center or the Northrop Plaza. Places should also be created that are intimate, comfortable and quiet, where casual studying, reading and discussions can occur.

5. Perimeter- The campus edge must be compatible to adjoining uses. Unsightly views should be screened, while views of open space, such as parks, should serve as an extension of the campus and reinforce the perimeter image.

CIRCULATION

Despite the forces generated by campus development, the University must continue to embrace the concept of the campus as a "pedestrian place." This would require that the University work toward the reduction of vehicular

traffic on the interior and increased development of pedestrian walks and plazas.

1. Pedestrian System - The pedestrian or walkway system offers a great opportunity for campus unity. The system must be adequate to accommodate the volumes of faculty, staff and students moving from building to building. It can serve as a major element for organizing and meshing together the different physical components on the campus. The primary design characteristics of a good pedestrian system are: it is safe, flows smoothly, maintenance free, accommodates surges of traffic, relates to future development and unifies campus areas, and has a special "collegiate" feeling. The pedestrian system should maximize opportunities to convey areas of contrast, beauty and life, both on the campus and the surrounding neighborhoods.

2. Vehicular System - The campus streets must move vehicular traffic efficiently and safely to desirable locations. The images or lasting impressions formed by individuals while driving to points of destination are important. The driver must rely upon visual cues that provide simple, straightforward points of orientation to guide the drives to desired locations with the minimum of anxiety and frustration. The servicing of campus buildings must be direct and of necessity provide for combination use by pedestrian traffic.

3. Bicycle System - The campus streets must provide for the safe and efficient movement of bicycles to and from campus zones. The bicycle should share the campus automobile routes as a basic means of circulation. Bicycle movement on plazas or walkways should be kept at an absolute minimum, and be clearly designated.

BUILDING DESIGN

The buildings on the campus have been constructed during a period exceeding one hundred and fifty years. Each building represents some phase of the society's economy, technology, values and aesthetic philosophy of the time that produced it. From this perspective, each building was modern in its time and, in some instances, examples of the most innovative architecture of its period. Future campus buildings should not only effectively respond to program requirements, but contribute to the overall campus concept and aesthetically be of lasting significance. The site layout and architectural design of new construction, linkages and renovation, should take advantage of (1) using buildings, arcades, canopies, pergolas and awnings to block out harsh sunlight and create breezy places for use in seasons when relief is sought; (2) building forms to create sun-traps and wind protected areas for use in seasons when warmth is welcome; (3) landscaping to create protected areas and (4) the construction of a completely climate controlled interconnected public space system within buildings to create greater human comfort.

UTILITIES

Utility systems should be designed to achieve economy (i.e. channelized and concentrated), yet permit maximum flexibility in the location and expansion of campus buildings. The University should continue to make use of utility tunnels for easy maintenance and change.

VEGETATION

Landscape plantings are not a camouflage or green stuffing that is packed between buildings, nor should they be designed as a series of isolated individual settings for structures. Their functions and intrinsic qualities can provide a matrix or base to unify other site elements. Planting and design

should be straightforward and simple to create an aesthetically pleasing environment, establish an identifiable character for the campus and minimize maintenance. Spring and fall flowers should be used wherever feasible and possible.

PARKING

To the maximum extent, parking should be developed on the periphery of the campus. Internal parking zones, where absolutely necessary, should explore underground opportunities and be properly screened by plant material. A hierarchy of parking allocation must be maintained for internal parking spaces.

SECURITY (LIGHTING AND TELEPHONE)

Campus lighting is an integral part of campus life as it extends the use of the buildings and the landscape by the faculty, staff, students and visitors. The night lighting of campus facilities is not an afterthought because the University lives twenty-four hours a day. The design of the lighting system must have safety and security as its primary thrust. This is particularly important on a campus with extensive night programs. The installation of exterior campus telephones would improve communication access and safety to the University particularly at night. The design of lights, telephones and other potentially intrusive elements should be carefully integrated into the campus landscape.

RECREATION AND SPORTS AREAS

With the increase in lifelong recreational pursuits, the need for open areas for sports, both formal and informal, and passive recreation will continue. It's important that open areas connect to each other visually, as well as spacially. To meet this increasing demand by campus occupants, a higher priority must

be given to the development and preservation of such areas. The erosion of open spaces by academic functions must be controlled.

SIGNAGE AND GRAPHICS

A comprehensive system of signage and graphics for directions and information, both outdoors and in, is important, indeed critical, to a campus the size and complexity of the University of Minnesota. It is necessary to have an informative campus environment -- one in which the faculty, staff, students, as well as, the infrequent visitor can feel comfortable and can identify. The campus community, as a whole, benefits and functions in a more orderly fashion, if directions relate to the viewer in a subtle, but direct manner. To be easily understood, the signage system must be simple and uniform.

LANDSCAPE ART

The University should encourage the installation of appropriate works of art on its grounds. Outdoor sculpture helps to create an environment that builds itself into the faculty, staff and students' consciousness that is remembered long after some of the more "practical" things are forgotten.

PRESERVATION

The Twin Cities campus, especially the East Bank, has lost much of the charm and distinctive physical characteristics mentioned by the founders when the site was chosen. For historical sentiment and inherent beauty, the University must establish a policy that will keep special areas (such as the Knoll on the Minneapolis campus and the Mall on the St. Paul campus) open and undiminished. Also, effort must be made to preserve buildings deemed to have special architectural merit or historical significance.

MISSISSIPPI RIVER CONNECTIONS

The University should take advantage of any future opportunities to re-establish visual and physical connections to the potential resources provided by the river flats area adjacent to the campus. The University should explore how the existing city-wide parkway system can be coordinated with the campus open space network to provide pedestrian and bicycle access to the river and through the campus.

CAMPUS ENVIRONS

The University, the City, and the neighborhoods share the same general environment. Therefore, the University should encourage and support in all appropriate ways, high standards of design and environmental quality outside its boundaries.